





Seventy-Fifth Anniversary  
of the  
Florida State Board of Health

MILLSTONES  
AND  
MILESTONES

Florida's Public Health  
FROM 1889

by

ALBERT V. HARDY, M.D., Dr. P.H.

And

MAY PYNCHON

Florida State Board of Health Monograph Series No. 7

JACKSONVILLE, FLORIDA

1964

STATE LIBRARY OF FLORIDA

F12  
614  
H268

# CONTENTS

	Page
Dedication .....	v
Acknowledgments .....	vi
Foreward .....	vii

## *Part I*

### *The Evolution of Public Health*

#### Chapters

I	A Changing Florida .....	3
II	The birth of the Florida State Board of Health, 1889 ..	8
III	The early years, 1889-1901 .....	13
IV	Early development of organized public health 1901-1917 .....	19
V	An era of retarded growth, 1917-1932 .....	30
VI	Relief, Social Security, and stimulated growth 1932-1945 .....	39
VII	Progressive development, 1945-1964 .....	51
VIII	County health units .....	65
IX	Progress through cooperation .....	75
X	Looking to the future .....	82

## *Part II*

### *The Growth of Individual Programs*

Administration .....	89
Vital statistics .....	92
Health education .....	96
Public health laboratory services .....	100
Sanitary engineering and sanitation .....	106
Entomology .....	113
Veterinary public health .....	116
Tuberculosis control .....	120
Venereal disease control .....	126
Epidemiology .....	129
Services to crippled children .....	131
Public health nursing .....	133
Maternal and child health .....	139
Serving Florida Indians .....	145
Nutrition .....	147
Narcotics .....	149
Dental health .....	150
Mental health .....	153
Chronic diseases .....	155
Licensure of hospitals and nursing homes .....	158
Hospitalization for the indigents .....	159
Radiological and occupational health .....	160
Accident prevention .....	162
Disaster and emergency services .....	163
Research .....	165
Training .....	167

### *Epilogue*

So much for so many by so few .....	169
-------------------------------------	-----

Fla

614

H268

## DEDICATION

This publication commemorates the seventy-fifth anniversary of the establishment of the Florida State Board of Health. It is dedicated to the many persons who through the years have contributed to the growth of public health in the State. We honor its outstanding leaders and its less conspicuous but very essential workers. We recognize with appreciation the interested citizens who have served on its Board and its many committees, and all who have aided in many ways in promoting its work. We acknowledge the working partnership with the medical and health professions and with sister agencies, both official and voluntary, who share concern for the protection and promotion of health. We salute the governors, administrative officials and legislators whose understanding interest has made possible the growth of public health in Florida from its early infancy to a strong maturity. Our gratitude also to the taxpayers for the funds which supported the programs described.

Many of those now living are with us because of the lifesaving results of disease prevention, and many selected Florida as their home state because it had been freed of its earlier "great plagues," "bilious fevers" and hordes of mosquitoes. This volume is also dedicated to these beneficiaries of public health and to all citizens of our State who through public health action are living a fuller life in a healthier environment.

## ACKNOWLEDGMENTS

The historical data for this monograph have been drawn predominantly from Annual Reports of the Florida State Board of Health, past issues of *Florida Health Notes*, Dr. J. Y. Porter's "Articles on the History of the Florida State Board of Health," and historical files of clippings, leaflets, reprints, and letters. To a lesser extent, the writers have turned to both old and recent publications found in the State Board of Health library, including Kathryn Abbey's "Florida, Land of Change," Henry F. Becker's "Florida: Wealth or Waste?," "Toward the Well-Being of Mankind, Fifty Years of the Rockefeller Foundation," Dr. Joe Mountin's description of the Development of Health Departments in 811 Counties, 1908-34; Congressional hearings — "Florida Hurricane Disaster," and many others. Though the authors have drawn information from the above literature, there has been no attempt to cite references as would be done in a scientific report. Recorded information was supplemented by the memories of those who have been with the State Board of Health for many years.

Names of persons have been used sparingly. Many now active or with productive earlier careers warranted personal recognition. Rather than presenting a history filled with names, we elected to provide the story of a movement to which all contributed, "each according to his talents."

The writers sought and obtained the aid of senior staff members for the review of an early draft of the manuscript. Their suggestions were used in revision. Part II, "The Growth of Individual Programs" was prepared either by, or in association with, program directors. Their ready cooperation is acknowledged with gratitude.

The senior author recognizes with appreciation the congenial and able participation of his associate in this project. Mrs. Pynchon brought to the task enthusiasm and much firsthand knowledge of Florida's battle for health acquired through her long leadership of the Tuberculosis and Health Association in Florida.

Members of the Monograph Committee gave generously of their time in the review of the manuscript as a whole.

As in all endeavors of this type, progress was dependent on efficient secretarial and "research" assistance provided throughout by Mrs. Libby Worsham.

## FOREWORD

WILSON T. SOWDER, M.D., M.P.H.

State Health Officer

THE SEVENTY-FIFTH ANNIVERSARY of the establishment of the Florida State Board of Health provided the extra stimulus required for the gathering of material for this historical monograph. Its subject has been of long-time interest to me. Colorful as well as able persons contributed to the early development of public health in our State. Dr. J. Y. Porter was State Health Officer for the first 28 years. This interesting physician and forceful personality, along with the problems and programs of his time, and other individuals and influences which determined the course of public health in Florida are introduced in this small volume. This is information which all workers in public health, as well as the friends of public health, will find of interest.

The first chapter—"A Changing Florida"—will be informative to those who think they know this State. What was its largest city, for example, when the State Board of Health was established? The answer may be surprising. To those less familiar with Florida, this description of the setting for the work of this organization will be very essential.

The history of the founding of the Florida State Board of Health and its growth in successive eras to the present is described in Part I, "The Evolution of Public Health." Here all activities of each period, with their varying interrelationships, are described. Also, we are invited to "Look to the Future." Thus there is a span of a century of public health, 75 years in the past and 25 yet to come. Then in Part II, "The Growth of Individual Programs," the history of the beginning and the development of each program is brought together in compact presentations.

This history of public health is instructive, stimulating, and comforting. Dr. Porter held persistently to a goal for the orderly collection of vital statistics despite seeming failure through more than six of his seven terms in office. The public health laboratory began in a very small way, with fewer examinations in a year than are now done in a fraction of a day. What, one wonders, may be the future of recently initiated programs, for example, heart disease control? Then too, one sees the long term significance of decisions,



particularly those of the State Legislature. Thus there was an era of retarded development due to drastic budgetary restrictions, and a period of progressive development beginning with a biennium in which the State appropriation for public health was doubled. Venereal disease control has been emphasized because of legislative concern or neglected because of public and legislative apathy. Programs have been added to and taken away from the State Board of Health. Decisions reached deliberately or hastily have influenced the course of development for decades. At this time of public and legislative concern for mental health, one wonders what will be the judgment of history on decisions yet to be taken. Will the action support the further evolution of comprehensive local programs to give effective attention to both physical and mental health? Such decisions have had, and will have, far-reaching significance.

This volume is recommended both for study and for pleasure. It is offered with a feeling of pride in an agency which has fought a good fight for the health of the people of Florida for three-quarters of a century and with a deep conviction that its work has been vitally important to the rapid progress of the State during this time.



# CHANGING FLORIDA

## PART I THE EVOLUTION OF PUBLIC HEALTH



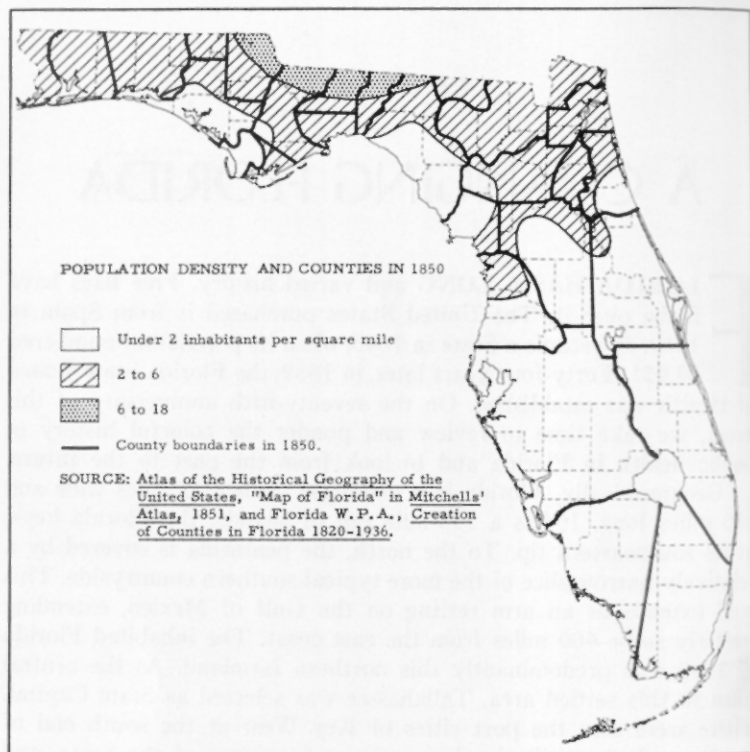
## CHAPTER I

# A CHANGING FLORIDA

FLORIDA HAS A LONG and varied history. Five flags have flown over it. The United States purchased it from Spain in 1819. It became a State in 1845, when its population numbered 57,951. Forty-four years later, in 1889, the Florida State Board of Health was established. On the seventy-fifth anniversary of this event, we take time to review and ponder the colorful history of public health in Florida and to look from the past to the future.

Geographically, Florida is a peninsula some 100 miles wide and 350 miles long. It has a 150-mile tail of islands, the Florida keys, at its southeastern tip. To the north, the peninsula is covered by a relatively narrow slice of the more typical southern countryside. This land extends as an arm resting on the Gulf of Mexico, extending westerly some 400 miles from the east coast. The inhabited Florida of 1889 was predominantly this northern farmland. As the central town in this settled area, Tallahassee was selected as State Capital. There were also the port cities of Key West at the south end of the keys, Jacksonville in the northeastern corner of the State, and Pensacola to the far west. In 1890 these were Florida's largest cities, with populations of 18,080, 17,201, and 11,750, respectively. Next in size were Tampa and St. Augustine, both towns of about 5,000 population. Apart from these port cities and the rural counties to the north, most of the Florida of 1889 was considered to be either mosquito-infested swamp or nonfertile sandy waste land.

The outstanding characteristic of Florida in these 75 years has been change. There has been a rapid but geographically irregular growth in population. From under 400,000 in 1890, the number of Floridians increased to almost one million in 1920, to two million by 1940, and to five million in 1960. In the northern rural counties, the population remained relatively static, and in some instances declined. Key West, the largest city in the State in 1890, had a reduction in population from the earlier level of approximately 18,000 to about 13,000 in 1940. Elsewhere there was an explosive growth of population in the coastal areas to the south and only a little less rapid increase in the central belt of the peninsula. In 1890 there was no Miami, Fort Lauderdale, or West Palm Beach, and the recorded population of what is now this three-county area was less than 1,000. Presently the population center of the State is



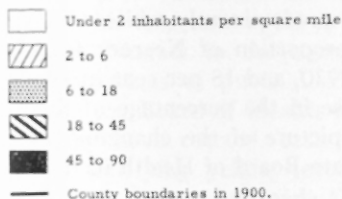
*Few people, even native-born Floridians, realize the strange and rapid development of this State. The population grew with a rush to certain areas, yet even today, there are large regions almost as isolated as in 1850.*

*Florida is an old land with new people, who first spread along its 2,000 miles of coast line and then its waterways. Settlers first came into the new wilderness along the Georgia-Florida border shown in the map above. Farmers and lumber men came from nearby southern states; builders and health seekers came from "up east." Tallahassee, because it was the center of population at the time, became the State Capital.*

*About 1900 there began to be a noticeable increase in the density of population in the north central part of the State. This migration expanded and pushed south and across the peninsula to embrace the shores of the Gulf of Mexico.*

*About this time heavier migration began to spread along Florida's eastern coast. Thus, in less than a century railroads supplanted the slow-moving coastal steamers; people followed the railroads; fabulous hotels took over service to tourists whose deep coat of tan, acquired on visits to the State, became a status symbol.*

POPULATION DENSITY AND COUNTIES IN 1900



SOURCE: Atlas of the Historical Geography of the United States, and Rand McNally and Company, Florida, 1898.

TOTAL POPULATION, 1960  
(In thousands)



STATE: 4,890.5  
HIGH COUNTY: 917.9  
LOW COUNTY: 2.8

SOURCE: United States Census of Population (Preliminary Figures)

moving rapidly toward these counties. In the early years under review, Florida's population of relatively well-to-do land owners and poverty-stricken tenants and laborers was concentrated in the north central plantation counties; the in-migration predominantly from the northeastern states has been toward the southern coastal counties on the east and on the west. The proportion of the population residing in rural areas in 1890 was 80 per cent, in 1930 it was approximately 50 per cent, while in 1960 it was 26 per cent. The influx of new residents has been predominantly white with a resulting progressive decline in the proportion of Negroes from 42 per cent in 1890, to 34 per cent in 1920, and 18 per cent in 1960. Also, there has been a marked increase in the percentage of the aged in the population. This then is a picture of the changing population which has been served by the State Board of Health in the 75 years of its existence.

When Dr. J. Y. Porter (the first State Health Officer) took office in 1889, transportation from his home city of Key West to Jacksonville was by boat; coastal vessels or river boats were the usual means of long distance travel. On the east coast there had been only a start on the building of railroads. In north Florida rail lines from east to west and reaching southward toward the Gulf and Tampa had been completed recently. The country roads were designed only for horse-drawn carriages. Hard surface highways were a development beginning in the twenties. This is a far cry from the modern expressways and air transportation. These have made neighbors of residents of distant points in the State and the airlines have brought Florida within easy reach of the nation and the world.

When the Board of Health began its work, Florida had an agricultural and lumber economy. The heart of the plantation country was in the central counties on the Georgia border. Here a prosperous economy was based on cotton, corn, and tobacco, and in earlier years, on slaves. There was a citrus industry, first in the Jacksonville area, then extending southward along the St. Johns River. But destructive freezes drove the groves to the central counties of the peninsula. Citrus became big business in the late forties and fifties, with the growth of canning facilities and the development of frozen juice concentrate techniques. The extensive truck farming of winter vegetables in the Everglades area is a relatively recent addition to the agricultural economy, and a very profitable one when killing frosts do not occur.

In the earlier years Florida had much grazing land but it had also Texas tick fever, bovine tuberculosis, glanders, and screwworm. These diseases seriously retarded the growth of the livestock industry. In the last two decades, with these diseases under control and



with improved stock and pasture, stock raising has developed into a basic and thriving industry.

Lumbering was an early industry with papermaking becoming important later. In very recent times, a widely diversified industry, including those related to national defense and space age exploration, became established in Florida.

From the earliest years of the State Board of Health, the favorable influence of Florida's climate on health has been lauded. Throughout his long tenure, the first State Health Officer repeatedly stressed the benefits to the economy, particularly to tourism, of adequate programs of public health. Again and again in the 75 years, since the Board of Health was established, public health and the economy have reacted, each on the other. For example, the control of terrifying yellow fever epidemics, debilitating malaria and hookworm disease, has made Florida a new land. The disruptive effect of venereal diseases on the war effort became evident; through vigorous public health efforts these were attacked and the loss to the economy was minimized. There was the "bust" following the "1920 land boom" and there were the depression years with resulting restriction of public health budgets and services. Multiple problems resulted from the sudden influx to and around military installations. On the favorable side, there has been an expanding economy with more adequate incomes, better homes, and improved nutrition. Schools, universities, and hospitals have been constructed; medical science and medical practice have advanced, and in recent years welfare services have relieved the lot of the poor.

This is the background against which we must view the development and work of Florida's Board of Health since its establishment seventy-five years ago.



## Chapter II

# THE BIRTH OF THE FLORIDA STATE BOARD OF HEALTH 1889

THE BIRTH of the Florida State Board of Health is a dramatic incident in the history of yellow fever and its control in the State. The immediate stimulus was the Jacksonville epidemic of 1888. Over 10,000 of Duval County's 26,800 residents fled. Among those who remained, there were 5,000 reported cases of yellow fever with 400 deaths. The mortality was said to be about nine per cent, a very low rate and "not due to the mildness of the disease but to the fine care given the patients.

As soon as news of the epidemic spread, the city became a ghost town. Stores were closed and buildings were boarded up. The rumble of death carts carrying away bodies was the only sound to break the uncanny night stillness. Panic was rampant. Dr. Porter describes the fall of 1888 as "a time of constant dread, actual fright and brutal instances of neglect where a member of a family deserted home, a sick wife and children because of uncontrollable fear . . . The panicky condition which prevailed . . . carried an irresponsibility of action which to a rationally acting mind, was difficult to understand." Dr. Porter had commendations also, "Likewise unstinted praise to those who fighting a concealed enemy in the dark, placed service above self and fearlessly met and conquered every obstacle which arose where the sick and needy were concerned."

From the early part of the nineteenth century, yellow fever was an endemic infection in Havana, Cuba. Commerce and passengers moved by ship from Havana to Key West (90 miles distant), and up the east coast of Florida, and from Havana to Tampa and the gulf ports. During the war between the states, yellow fever prevailed almost every year in Key West. According to Dr. Porter, it struck this city in 1867, 1869, 1870, 1874, 1875, 1876, 1879, 1884, 1887, and 1899.

It had long been recognized that Florida's seacoast was one of the most difficult to protect due to its length and its port cities which were in direct communication with infected communities in tropical countries from which yellow fever was introduced. Thus it was that

Pensacola, Fernandina, Key West, Tampa, St. Joseph (now Port St. Joe), and finally Jacksonville, ports for slow-moving vessels, were the points of attack, and furnished the ammunition for outbursts which took thousands of lives.

As early as 1835, the schooner *Grampus* was credited with bringing yellow fever to Pensacola. Fernandina had severe epidemics in 1871 and 1877. Tampa had a visitation in the early fifties, with widespread fatalities. In 1887 panic-stricken from knowledge gained in earlier sieges, the exodus from the city of Tampa was so hasty that it is reported lamps and stoves were left burning. Port towns all along the west coast were victims of yellow fever epidemics including Cedar Key, St. Marks, Apalachicola, and Pensacola. One of the most memorable epidemics occurred at St. Joseph. This thriving west coast community was, for all practical purposes, wiped out in 1841. It has never regained its importance as a seaport.

Commenting on his experience in such epidemics, Dr. R. D. Murray, Surgeon in the Marine Hospital Service (later the U. S. Public Health Service) said, "We have suffered with yellow fever and the Gulf Coast has tales of horror which put foreign wars in the light of junketing parties. My war experience was a holiday compared to my anti-pest duties and privations." Thus, the major public health problem in this era in Florida was prevention of introduction of yellow fever at its port cities.

A similar hazard from the dread cholera was recognized. One illustration must suffice. On one occasion a steamer came into Key West for medical aid and provisions. There was a cholera epidemic on board. The bodies of victims were being thrown overboard while the steamer was in dock. On discovering this, the steamer was cut free to drift out to sea. The floating bodies of those who died so quickly that proper burial was impossible were snagged by boat hooks and towed into the channel of the outgoing tide.

Florida recognized the acute need to protect itself from epidemic diseases from other countries. Faced by the terrorizing epidemics, counties also sought to prevent the introduction of diseases from other counties. Physicians seeking to visit the ill in counties ad-

**STATE BOARD OF HEALTH:** This designation is used with two distinctive meanings. It is the three, later five-person, official policy-making Board designated by the Governor; it is also the name of the statewide public health agency. By the context, it is usually clear whether the concern is with policy-making or operating activity. At times both may be involved, the one guiding by policy decisions, the other doing the necessary work.

joining their own were warned that they risked the danger of being shot because they had been in contact with yellow fever in their own counties. Francis P. Fleming, a candidate for Governor in 1888, the year of the major Jacksonville epidemic, personally experienced the restricted and chaotic commercial and travel conditions. His first act as Governor was to seek authorization for "an organization which would administer protective measures freed from extreme fear or unreasonable restrictions."

Let us return to the Jacksonville epidemic of 1888. The city was gripped by fear. Many strange cures were suggested and tried. Lime was spread in the streets, houses, and shops. Bonfires lit the sky at night. Invoking the theory of concussion, cannon and fire arms were discharged each evening to dispel the "fomites," all to no avail. Mail delivery ceased. Mail going out of and coming into the city was fumigated as it was thought it might be carrying the disease-bearing fomites.

Quite early, it was decided that depopulation of the city was the quickest method of controlling the spread of the disease. The United States Bureau of the Census supplied census takers whose duty was to determine the number of people in the city and those willing and able to leave. Refugee camps were established outside the city. The Marine Hospital Service established a camp at the Florida-Georgia State line for refugees who wished to leave the State.

It was in these circumstances that Dr. Porter began his professional career in Jacksonville. Having had the disease, he was, in the language of the day, "acclimated" to it. As a physician in Key West, he had had wide professional experience with yellow fever. Also, as a visitor to Jacksonville, he had seen in consultation the first suspect case and had confirmed the first diagnosis of yellow fever in the 1888 epidemic. Shortly after he returned to Key West, he received an urgent telegram from the Duval County Board of Health asking him to provide professional assistance.

There was a massive problem of relief, as well as acute need for medical and nursing care. The Duval County Board of Health had no full-time personnel but the Marine Hospital Service provided some aid. At the instigation of local physicians, an "Auxiliary Sanitary Association" was established primarily to handle general relief, as well as to combat rumors and to deal with criticism. Substantial donations of money, food, and clothing were being received from all parts of the country and from distant parts of the world.

Shortly after Dr. Porter's arrival, it was agreed that all medical

**FOMITES:** Articles such as clothing, eating utensils or letters upon which known or unknown disease producing agents might be transported were of great concern to the early workers in public health in Florida. This was in contrast to "miasmas" which assumed spread by or through the air.

and relief measures should be coordinated within one "government relief service." It was also agreed that Dr. Porter should be in charge of this combined program. One of its activities was to assure, insofar as possible, that medical and nursing care was made available to those in need. Prevention of disease was of particular interest to Dr. Porter, who maintained responsibility for fumigation, the one measure believed effective. Under his direction every house in the city in which there had been a case of yellow fever was fumigated. Then there was the responsibility for the receipt, custody, and distribution of funds, food, and clothing. Besides the sick there was a population of some 16,000 left in the city, 14,000 of whom were without employment because of the utter demoralization of business. To add to the confusion, hundreds of people, mostly Negroes, poured into the city drawn by stories of free rations and easy money.

With senior responsibility for this emergency medical and relief program, the capacity of this comparatively young man as an outstanding physician, an organizer, and a community leader became apparent. In January 1889, when the epidemic had subsided, the citizens of Jacksonville turned their attention to Dr. Porter. Ceremonies were held, and lengthy and extravagant commendations and heartfelt thanks were tendered him. In recognition of his gratuitous service to the city during the epidemic, the Jacksonville Auxiliary Sanitary Association presented him with an expensive gold timepiece from Switzerland decorated with rubies and diamonds. His grandson presented the watch to the Florida State Board of Health some years ago. (It still keeps time.) Many resolutions of appreciation were presented to Dr. Porter and later, both Houses of the Florida Legislature honored him. Later Dr. Porter wrote, "The perfume of the flowers of esteem still lingers as fragrant as when given 37 years ago."

Before it was actually accomplished, there had been repeated efforts to create a State Board of Health to provide protection for the health of the people. In 1873, a bill establishing a State Board of Health and carrying an appropriation of \$200 had been presented to the Legislature. This failed, the records reveal, due to the "exorbitant" amount of money requested. Repeated efforts through subsequent years also failed. Dr. John P. Wall of Tampa, a past president of the Florida Medical Association, urged each Legislature to pass a law establishing a Board of Health because "the duty of preserving the health and lives of its citizens from causes of disease is as incumbent on the State as is that of suppressing rapine and murder." He went on to say that the time was in fact hastening when the preservation of the public health would become one of the primary considerations of enlightened government.

The first effective step toward the establishment of a State Board of Health was taken at the Constitutional Convention of 1885. Flor-

ida's two prior constitutions failed to contain an article relating to the public health. However with the encouragement and insistence of Dr. Wall, who at that time was legislative representative from Hillsborough County, the brief article in the present constitution authorizing and directing the designation of a State Board of Health was inserted and accepted. Dr. Porter commented on the significance of this as follows: "This . . . stands as a lasting memorial to a man (Dr. Wall) of superior mental attainments and who, far ahead of his times, was looking forward to the future welfare and commercial prosperity of his State."

Even with this constitutional provision of 1885, and with urging from the president of the Florida Medical Association, the Legislature of 1887 failed to take needed action to establish a board of health.

It was the epidemic of 1888, with the attending disruption of travel and commerce, which brought action. Governor Fleming as his first official act called the legislature into special session to create a State Board of Health. The wording of the bill repeatedly indicates that the concern was for "yellow fever, smallpox and cholera." Attention to other infectious diseases and to the general supervision of the public health is included in a position of lesser priority.

The Governor promptly appointed the three-person Board, William K. Hyer, Pensacola, William B. Henderson, Tampa, and Dr. R. P. Daniel, Jacksonville, chairman. Dr. Porter was immediately chosen as State Health Officer. Concerning this action Dr. Daniel stated, "In making this selection, the Board realized that it was not only giving expression to its own preference but was voicing the almost unanimous sentiment of the people of the State—that Dr. Porter was the one man best fitted by the qualifications of capacity, experience and popularity to fill the office." The choice proved to be a happy one.



### CHAPTER III

## THE EARLY YEARS 1889-1901

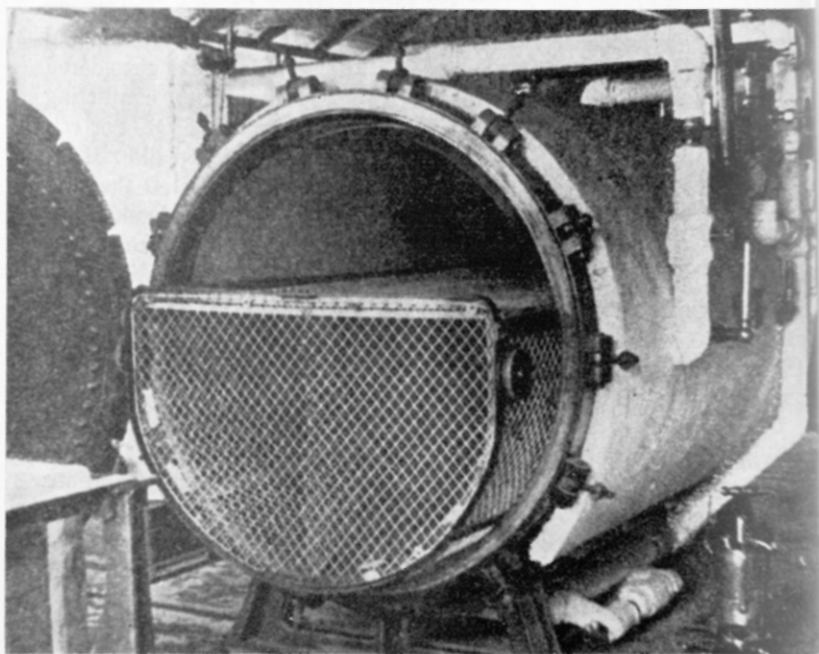
**D**R. J. Y. PORTER served as Florida's State Health Officer for seven terms, each lasting four years. The problems and activities of the first three differed substantially from the later ones.

In commenting on this period, Dr. Porter indicated that the whole thought of the Board of Health was centered upon preventing yellow fever from again entering the State. Its endemic character in Havana, and to a lesser extent in Key West, was recognized. It was apparent that it was introduced periodically at port cities, presumably arriving by ship; the infection was believed to be carried on clothing, in mail, and on cargo. Annual reports provide many statements of opinions relative to the origin of specific cases or outbreaks of yellow fever. Probable sources of infection were believed to be a mail bag from an infected area, inadequately disinfected trunks used in the smuggling of cigarettes, incomplete disinfection of homes, the movement of those improperly certified as "acclimated" to the disease, and many others. Control of travel, fomites, and shipping were considered to be of major importance. But there were uncertainties, conflicting opinions, and astute observations. Here, for example are Dr. Porter's reasons for differentiating between vessels which did and did not remain in Havana overnight: "Experience has demonstrated that the night air in places continuously under the endemic or epidemic influences of yellow fever is pernicious and calculated to produce the attack of the disease . . . The unacclimated, exposed in this wise, very rarely escape sickness; whereas on the other hand, the unacclimated can almost with impunity visit an infected city during the sunlight." (This is understandable now that we know the *Aedes aegypti* is a night-biting mosquito).

The Board of Health under Dr. Porter's leadership, developed a system of maritime quarantine involving: (1) Boarding and inspecting incoming vessels; (2) establishment of quarantine stations at all major ports; (3) differential handling of vessels which did or did not remain overnight in an infected harbor; (4) fumigation and/or sterilization of fomites; as for example, clothing, mail, or cargo believed to be carrying infection; (5) requirement of Acclimation



*Quarantine stations like this one above at Pensacola dotted Florida's lengthy coast line. Passengers were inspected and cargo was fumigated or sterilized to prevent entrance of yellow fever into the state by the slow-moving ships sterilizing equipment is shown below.*





Certificates to certify that the person had had yellow fever, cholera, and smallpox (or had been vaccinated for the last named disease). The last was the forerunner of vaccination certificates required today for reentry into the United States.

Concerning the Acclimation Certificates, questions were raised both as to their dependability (it was stated that they were sold for a price both in Florida and Havana) and the reliability of the medical concept. Dr. Porter firmly believed that an attack of the disease conferred immunity and that such persons need not be held in quarantine. Those who disagreed were wont to say facetiously that the "State Health Officer would not be convinced of a second attack of yellow fever in the same person unless the diagnosis was confirmed by postmortem in both instances on the same patient." A second method of proving immunity was "continued residence in an endemic focus of yellow fever for 10 years."

The development of regulations and procedures, the application of these, and the building and operating of quarantine stations were major concerns of the State Health Officer in these early years. The road was not smooth. In the very first annual report of the Florida State Board of Health, there is reference to "the present enmity to the State Board of Health by Key West" . . . due to "government supervisions and restrictions which the people view as imposed more for the benefit of other communities than for Key West." This was the State Health Officer's home city.

Early in this period, maritime quarantine, where applied, was a responsibility of the states. In Florida it was the major public health activity in these early years. The pictures in the early annual reports are of quarantine stations and their disinfecting machinery. These stations were "fitted up with the latest machinery for dry and moist heat disinfection and sulphur fumigation." The cost of operating these, though supported chiefly by fees, equaled that for all other Board of Health activities. During this period the Marine Hospital Service displayed increasing interest and assumed more responsibility for maritime quarantine. This resulted in heated defense of "states' rights." In 1900 the State Health Officer was invited to appear before the U. S. Senate Committee on Public Health and National Quarantine to "present arguments for or against federal supremacy in health matters in the several states." Dr. J. L. Horsey, the Assistant State Health Officer, offered a forceful and lengthy statement "against any proposition of the kind." Referring to this comment, the annual report for 1900 states, "It is to be regretted that the venerable Chairman of the Committee in his bias should have endeavored to make it appear that the State Board of Health was possessed of a vindictive spirit." However, the annual report for 1901 stated, "A notable and probably the most important feature of the labors of the Board during the past year was the transfer of opera-

tion and management of the maritime quarantine system of the State to the U. S. Marine Hospital Service." Florida had reason for pride as the Federal authorities accepted with few changes the rules and regulations previously developed. Thus a service conceived and developed by the Florida State Board of Health under Dr. Porter's leadership provided the foundation for the further growth of this modern system. Through his designation as quarantine officer for the Port of Key West, he maintained his contact with this public health activity.

The year 1901 was the end of an early era, for this was the time that the practical significance of the discovery of the mosquito transmission of yellow fever and malaria was being discussed. In 1900, findings related to the "mosquito theory" were effectively summarized. Dr. Porter's opinion at that time was "while it is not denied that mosquitoes may convey malarial germs . . . yet to ascribe to these insects the sole power of production of this disorder as well as that of yellow fever, is to reject equally convincing and potent facts." In the following year, however, Dr. Porter stated that "the possibility of the transmission of yellow fever to man through the agency of the infected mosquito of a certain species is no longer theory but a well determined fact." The uncertainty which lurked in the minds of the members of the Board as well as the American Public Health Association was whether this was "the sole and only means of transmission of the yellow fever poison." So the tried and tested means of quarantine and disinfection continued for a time while the efficacy of prevention of yellow fever by mosquito control was being observed and established.

Smallpox was the second major problem to which the State Board of Health directed its attention in these early years. Reports from countries for these years record many instances of the identification of smallpox, the isolation of patients in "pest houses," and the urging of vaccination. Here for example are comments from four counties: cited in the annual report for 1900: "Occasional cases of smallpox," "A few cases of smallpox," "One of the worst epidemics of smallpox," "Smallpox made an inroad into the county." In that year, of a total budget of about \$50,000, there were "extraordinary and unusual expenses" of about \$14,000 for "yellow fever expense" and \$17,430 for "smallpox and vaccine virus." Emergency expenditures for these two diseases in this year were substantially more than the regular State Board of Health budget.

The third dread epidemic disease of this era was cholera, but in this 12-year period there was grave concern in Florida only in 1892, the year in which this disease found its way from Europe into New York City. Reports reflect a grim terror "lest the dread scourge should obtain a foothold." The need, as conceived by Dr. Porter, was

to allay alarm. The public in Florida was comforted by his assurance that "everything necessary would be done to protect their health."

Compared with yellow fever and smallpox, other infectious diseases received little attention. Malaria was something to be expected. Dengue fever was important since it was easily confused with yellow fever, and large numbers of cases occurred periodically. Measles, whooping cough, and scarlet fever received passing comment. As for diphtheria, the annual report of 1894 states, "The discovery by Behring . . . of a serum . . . promises to rob the disease of its terrors . . . Should this prove a success, this lymph will be kept constantly on hand and ready for distribution." Tuberculosis was recognized, the advantages of Florida's climate for treatment were emphasized, and there was the new concept that, "at the present time it is believed to be transmitted by infection." Leprosy is mentioned as a problem because of unfortunate publicity. There were sensational articles in northern papers maliciously reporting the employment of lepers in the cigar factories of Tampa and Key West. There was also concern with epidemic disease in livestock. In the second annual report of the State Board of Health, action to prevent the introduction of glanders was reported.

Significant also are those conditions which did not appear in the public health picture, as for example, hookworm disease. Sewage disposal for Key West was considered but otherwise this problem and the purification of water were not on the public health scene in these early years.

Besides the control of epidemic and other infectious diseases, two problems received repeated attention. There was a persistent concern with vital statistics. The initial plan to work through county boards of health failed. Proposed legislation to require reporting of infectious diseases was met with disinterest by legislators. But despite these rebuffs, a system for reporting was initiated. Then there was the eager interest in health education. The publication of *Florida Health Notes* was started in 1892. Early and later developments of these and other specific programs are considered separately in the later section of "The Growth of Individual Programs."

In these beginning years there were prominent administrative problems involving Federal-State and State-county relationships. As previously indicated, the first was related to differing opinions in the handling of maritime quarantine. The criticisms by State personnel of Federal plans and programs were pointed and emphatic. Concern with "states' rights" in the health field has a long history.

Prior to the establishment of the State Board of Health in 1889, there were county boards of health. These boards had authority to make rules and to declare quarantine whenever they deemed it expedient. The continuation of such boards was authorized by the Legislature in 1889, but problems soon became apparent. Within

three years, abolition of county boards was recommended and eventually this received legislative authorization except for Escambia and Franklin Counties. In place of county boards, "county agents" (physicians) were appointed; these local practitioners reported directly to the State Health Officer.

The chief budgetary problem was limitation of funds. The amount available for general programs varied from \$20,000 to \$30,000 per year with additional amounts for extraordinary expenses, chiefly for epidemic control. Throughout these years, the salary of the State Health Officer remained at \$3,000. The salaries and travel of county agents at \$15 per day and five cents per mile accounted for \$2,000 to \$4,000 per year. There was clerical assistance and office expense. The printing of *Florida Health Notes* was a significant item in this small budget. In these early years, then, the State Health Officer, together with his quarantine stations, his secretary, and his very limited part-time local assistants, was the Florida State Board of Health.

Looking back over these first 12 years, Dr. Porter comments with deep feelings and affection. Here are excerpts from his concluding statement, "The Board started out 12 years ago without precedents for guidance. The entire country viewed with some anxiety and doubt the inauguration of a system of maritime quarantine . . . which was opposed to all previously conceived ideas. The Board has jealously watched every movement which would affect the reputation of the State as a health resort. The growth of manifestations of confidence has been as marvelous as it has been gratifying to the Board . . . In no State of the Union has so much been accomplished in an educational way in health matters . . . The third term of service of the State Health Officer is completed . . . 12 years . . . marked by strenuous effort, much anxiety, and a responsibility, the burden of which cannot be expressed. Yet the service has been . . . one of satisfaction and gratification. The people of Florida . . . have made the position of State Health Officer one of honor, dignity, and affection . . . To the press . . . the great director of thought and controller of public opinion . . . his grateful thanks for the words of cheer, approbation, and support . . . The flattering praise . . . reads more like a eulogy given the dead than an approval of conduct of the living. These choice flowers of tender expressions, fragrant with the perfume of appreciation, attachment, and love are priceless gems to himself and family . . ."

#### CHAPTER IV

## EARLY DEVELOPMENT OF ORGANIZED PUBLIC HEALTH 1901 - 1917

**T**HOUGH problems of the first three terms of Dr. Porter's service continued into his additional four terms, this later period represents a time of early development of organized public health. It led eventually to the creation of the bureaus within the State Board of Health and to the distribution of responsibilities among these bureaus. Thus, we find here roots for the present-day organization of public health in Florida.

In this period, yellow fever occurred in epidemic proportions only in Pensacola in 1905. Evidence clearly pointed to its introduction from New Orleans. The disease was also introduced into Tampa. However, energetic detective work resulted in the location of the initial case, which was being hidden by the family and neighbors, and intensive programs of screening and mosquito control prevented the spread of the disease in Tampa, a seeming public health miracle at that time. In Pensacola, however, the infection reached epidemic proportions. A total of 572 cases with 82 deaths was reported from a population of between 25,000 and 30,000. The detailed reports of this outbreak indicate that for the first time in Florida measures to control yellow fever were directed solely toward prevention of its spread by infected mosquitoes. Reports specifically stated that hospital cases were isolated in carefully screened wards, patients were cared for by nurses who had not had yellow fever, and patients with other febrile disorders which proved to be due to causes other than yellow fever, were admitted to the yellow fever ward. With the control measures used, there was no spread of the infection. Likewise in the community, measures were directed to screening, destruction of adult mosquitoes, and the prevention of mosquito breeding. These "advanced ideas" were vigorously opposed by a segment of Pensacola's population. The State Health Officer received threatening letters and there were public demonstrations criticizing the State Board of Health and expressing opposition to its procedures. However, "fully 75 per cent" of the citizens were understanding and cooperative. With substantial satisfaction it was pointed out that the methods



were effective in "suppressing the epidemic before the appearance of frost." A further proof of the efficacy of the control measures was the fact that the epidemic did not spread from Pensacola to surrounding communities. Despite earlier hesitancy in acceptance of the "mosquito theory," the experience of 1905 established to the satisfaction of the State Board of Health that the sole method of transfer of yellow fever was through the bite of an infected mosquito.

The second epidemic disease of major concern was smallpox. This was an outstanding problem in these years. For this, the promotion of vaccination, together with isolation of known cases and their contacts in special hospitals or "pest houses" was the control method of the day. These isolation facilities were built on sites away from human habitation. The construction near Tampa and Jacksonville of what must have been for that time rather adequate small hospitals cost the State Board of Health approximately \$2,000 each. In 1904 control of smallpox entailed a greater financial expenditure than any of the other contagious diseases with which the State Board of Health had to contend. In that year, 660 cases were cared for "at a cost of \$6.95 per case." The management consisted of "treatment, medicine, food, nurses, guards, and substantial disinfection. It is thought that this is not a bad showing of economic management of a disease which generally runs from a period of three to six weeks." According to a physician in practice at that time, the chief expenses involved were for armed guards and food which was brought to the hospital. A major epidemic of smallpox occurred in 1912 in Florida with over 3,000 reported cases. There were 60,000 vaccinations in that year. In later years the number of cases declined with the increasing acceptance of vaccination. Late in this period, isolation hospitals built for the care of smallpox patients were either closed or utilized for other purposes.

Dr. Porter felt so strongly about the need for compulsory vaccination that he took leave without pay and attended the 1901 session of the Legislature with the hope of getting a law enacted to require vaccination. One feature of the proposed legislation was to prohibit large industries such as lumber, turpentine, and phosphate from employing laborers before they and the operators were successfully vaccinated. There was much opposition to the measure culminating in its defeat. The State Board of Health announced it would vaccinate any man, woman, or child who would avail himself of this protection against smallpox and that all houses where there was a case of smallpox would be placarded so that everyone would know they should keep out. Later, Dr. Porter recognized that public opinion had done what legislation had failed to do. Families where smallpox existed were ostracized socially and otherwise. The State Health Officer said, "It was a triumph of educational reasoning.



*Small hospitals were built near populous areas to provide isolation for patients with yellow fever, smallpox, tuberculosis and other infectious diseases. These barefoot children were typical of those infested with hookworms in the rural areas in 1901-17. Since then educational campaigns and sanitary disposal of wastes have reduced the incidence of this disease.*



actuated not alone by fear but by personal inconvenience and perhaps loss of employment if not duly observed."

Illustrative of the keen medical and scientific interests of Dr. Porter and his physician associates, the annual report of 1907 records a case of smallpox in a newborn infant. The mother had had smallpox late in pregnancy and, to quote from the report, "the child beyond all doubt was recovering from a case of smallpox contracted in utero."

There was no exceptional interest in other communicable diseases during this time. Typhoid fever occurred sporadically, endemically, and in frequent epidemics as reported from countries in all parts of the State. Each year there were cases and deaths due to diphtheria. Here there was divergence of opinion in the acceptance and application of new knowledge. In 1912, Dr. Hiram Byrd, Assistant State Health Officer, expressed the opinion that "Perhaps the most muddled thing in the calendar is diphtheria. This arises from the fact that the carrier case is overworked . . . When the health officer begins to poke around in the throats of well children and tell them they are carriers and must stay away from school and be quarantined, he brings himself and the cause he is trying to serve into bad repute. The only thing that he has to show for his pains is the doubtful satisfaction of being orthodox."

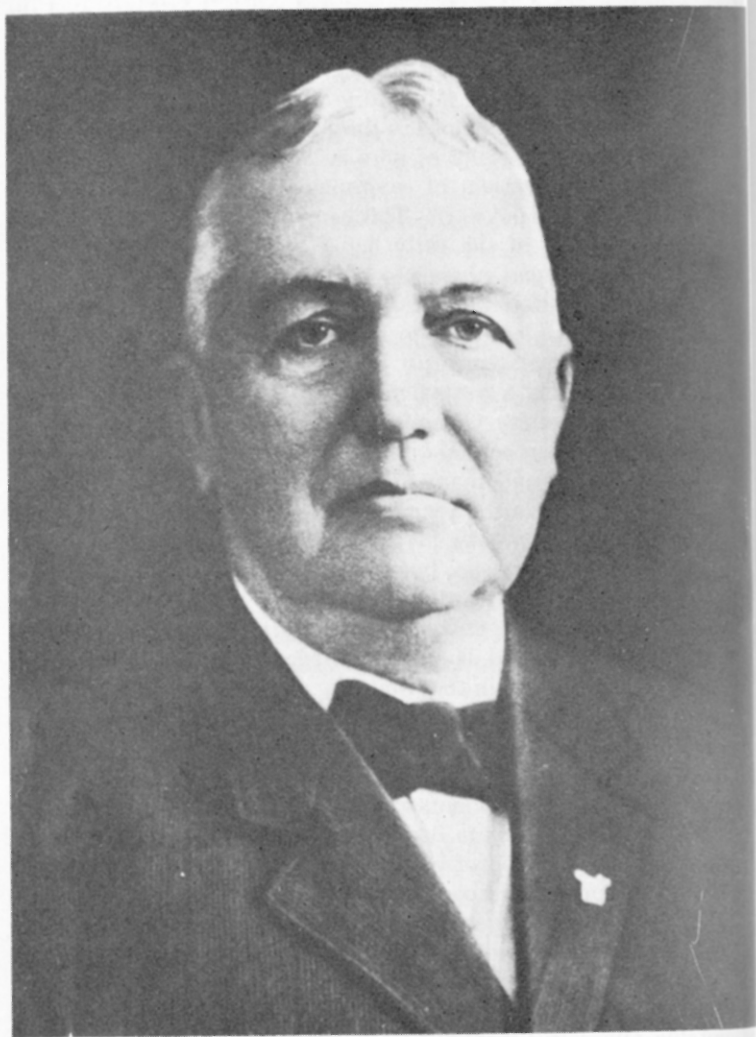
Dengue fever was epidemic from time to time, though this appeared to create no uneasiness except for the problem of accurate differentiation of this disease from yellow fever. There was an increasing concern with malaria. The first sanitary engineer was appointed in 1916 and a Bureau of Engineering was developed with the initial major purpose of preventing malaria through mosquito control.

During this period hookworm disease was recognized as a public health problem. Early scientific reports concerning this disease were published soon after the turn of the century. An active and aggressive control campaign was initiated in 1908. The project began with the education of teachers, all of whom were placed on the mailing list for *Florida Health Notes*. The record states, "The interest that it aroused throughout the State is almost unbelievable." Simultaneously, the physicians of the State gave recognition to the occurrence and significance of hookworm disease. "The State Health Officer, bearing all these things in mind and conceiving that it is the high duty and privilege of the State Board of Health to suppress preventable disease and to relieve those who otherwise would continue to suffer, outlined a campaign not for the total eradication of hookworm disease, for that is impossible, but for the amelioration of suffering and to prevent its ravages." The central feature of this program was the agreement by the State Board of Health to pay attending physicians \$3.00 for each indigent case of hookworm disease which they

treated. Laboratory confirmation and the filing of a report was required. Dr. Porter commented, "This makes the one thousand doctors of Florida one thousand missionaries in hookworm work." In addition, two physicians were placed in the field to reach and instruct the nonreading population. It was pointed out in justification of the substantial expenditure that "For every \$3.00 spent a little hookworm sufferer will be redeemed from the tortures of a living death." This program of education, laboratory diagnosis, and treatment continued with variations in emphasis throughout the remaining years of Dr. Porter's tenure. Worthy of note is the lack of any vigorous attention to the improvement of environmental sanitation for prevention of the spread of hookworm. This came later.

An outside view of the early hookworm program in Florida is found in the first report of the Rockefeller Sanitary Commission for the Eradication of Hookworm Disease. This provides a summary of hookworm work in Florida up to December 31, 1910. The following is the introductory statement: "The Florida State Department of Health had instituted a campaign against hookworm disease before the Rockefeller Sanitary Commission was organized. In response to Dr. J. Y. Porter's very cordial invitation, the administrative secretary of the Commission and many of the state directors of sanitation visited Florida early in the year to study the methods and results of that work. Not only are we personally indebted to Dr. Porter and his staff for many courtesies, but to them the service is indebted for cordial cooperation and helpful suggestion at every point. We have asked the privilege of appending this summary of the work in Florida for its intrinsic merit and as an acknowledgment of our indebtedness to the work and workers in that State."

The importance of tuberculosis as a major health problem was acknowledged. Early in this period, fresh-air treatment was in vogue and the climatic advantages of Florida were stressed. The need for isolation of tuberculosis patients was emphasized also. The Legislature in 1909 authorized the State Board of Health to provide for the care, segregation, and isolation of persons having contagious or infectious diseases. This permitted acquisition and maintenance of institutions for the treatment of indigent persons with tuberculosis. However, the same Legislature diverted \$60,000 which the State Board of Health had intended to use for this purpose to the pension fund. In 1913, after several years of frustration and a close study of the subject, an acceptable alternative was suggested. The plan was "to employ a corps of trained nurses to travel the State, hunt out the pulmonary consumptive and by advice and continuous assistance, teach the sick individual as well as other members of the family the rudiments of healthful living and thus protect the well members of the family as well as to assist the sick." In the following year, "Three sociological workers (nurses) for special tuberculosis work were authorized."



*Dr. Joseph Y. Porter, Florida State Health Officer (1889-1917)*

## JOSEPH YATES PORTER

Joseph Yates Porter was born in Key West, Florida, October 21, 1847. Mentally and physically Dr. Porter was large with the carriage and appearance of some of the great political figures of his time. He came to fame through "Yellow Jack" which he pursued to its death.

The educational and cultural background of this man, whose name was to become a byword in Florida, was influenced by members of two of the most illustrious families of the South. He was born of wealthy patricians; his heritage was rich. He was born to lead and he fulfilled his destiny.

In the summer of 1867, Dr. Porter contracted yellow fever. In his much later writings he reports that a recital of his case would be of interest to medical men for two reasons; "first, the amount of ignorant medication the human system can throw off, and second, the fact that no one dies until his or her predestined time arrives."

Dr. Porter's writings reveal an astute philosopher and judge of people and their problems. He was a man with vision beyond his time. He was generous with himself, his money, and his talents. At the time of the yellow fever epidemic in 1888 in Jacksonville, he was the first to respond to the call for help. He worked without remuneration until the epidemic had been quelled.

In his career he encountered fear, ignorance, lethargy, and politics. The fearful he attempted to assure, the ignorant to educate, and the lethargic to inspire. With politicians he refused to compromise. He brought upon himself criticism, castigation, and threats, but he was not deterred. Justification for his actions was in the success of his programs. Many conquests were made, but not without some rough and tumble times during which Dr. Porter several times turned in his resignation as State Health Officer. Each time the Board and public refused to accept it.

To his successors he bestowed a firm foundation. The State Board of Health he said in departing, "is a creature of the people of Florida for the people's good, and it stands as a barrier between them and its consequences."

After the close of World War II he returned to Key West where he died in the same room in which he had been born 79 years before.

Fifteen nurses had been recommended and requested. Dr. Porter's final annual report, two years later, records the employment of 13 nurses (one Negro) to provide district nursing service. At first their work was confined solely to the antituberculosis campaign but this was soon extended in scope to include all lines of public health activity. This appears to have been the birth of public health nursing in Florida.

From its organization, the Florida State Board of Health was concerned with glanders and rabies. This work emphasized the interrelationship of diseases of animal and man. The State Health Officer therefore recommended that a Veterinary Division be established. However, when the Legislature in 1903 provided funds, it assigned this duty to the University of Florida. But in the following year, "under an amicable agreement," the professor of veterinary medicine at the University of Florida was employed by the State Board of Health as a veterinarian to be paid per diem when engaged in work for the Board. The Division of Veterinary Medicine developed a very active program.

In addition to glanders and rabies, this Division gave major attention to hog cholera, Texas fever, and tuberculosis in cattle. From the first, responsibility was assumed for the purchase and free distribution of hog cholera vaccine. Between 1911 and 1915 the State Board of Health spent \$73,500 on this product. A program for the tuberculin testing of cattle was instituted. However, the major veterinary effort was in the control of Texas "tick fever." The mode of transmission by ticks was determined in 1889. This was the introduction of the concept of transmission of infection by insects and many veterinarians were skeptical with regard to the accuracy of this theory. At first some termed it a "romance in pathology." Dr. Porter pointed out the economic significance of this disease. Cattle from infected areas transported to noninfected regions carried the infection with them. The sale of cattle for interstate shipment practically ceased. Animals from noninfected areas when added to herds which were infected would contract the disease. Thus, improvement of stock by the importation of breeding cattle from the north and west was economically impractical. With vitality drained as a result of disease, and with no possibility of improvement through breeding stock, Florida's cattle were inferior scrub animals. The need, as Dr. Porter saw it, was to control the tick, to improve the breed, and to develop a prosperous cattle industry. To this end, a vigorous campaign of tick eradication was initiated. Cattlemen were urged to cooperate but many were not convinced. They feared for the lives of their stock. Tempers ran high, fences were cut, dipping vats were burned or blasted out of use, men were shot, and many acts of vandalism were reported. Palm Beach, Broward, and Dade Counties accepted the State Board of Health recommendations and soon were



found to be tick-free. This served as an example to others, particularly when permission was granted those counties to ship cattle to any part of the country. Soon other counties accepted the recommendations, and the development of healthy cattle and a healthy industry was on its way.

Returning to human health, services for indigent crippled children were initiated by the State Board of Health. In 1912, wards for crippled children were opened in both St. Lukes and Brewster Hospitals in Jacksonville. From that year on, throughout Dr. Porter's administration, each annual report contained a well illustrated record of children cared for under this program. The first physician in charge of this program, Dr. Raymond C. Turck, was a volunteer who later served as State Health Officer.

In no other activity was Dr. Porter's persistence against discouragement so clearly evident as in vital statistics. In his earliest reports, the need for dependable statistics on deaths, births, and marriages was strongly emphasized. In 1899, as a result of persistent urging, the Legislature authorized the collection of such data but failed to provide funds for implementation. So again and again, the need for dependable statistics, even for "sickness statistics," was passionately urged. Referring to the various procedures attempted with little success, Dr. Porter concluded that "the effort was fruitless." However, in 1915, the Legislature authorized the establishment of a Bureau and the appointment of a "Vital Statistician." The long sought goal was in sight.

The development of a laboratory, in contrast, was a successful venture from the beginning. Its organization was recommended in 1900 and was authorized as soon as "the Board's treasury would permit." A devastating fire in 1901 disrupted plans and no action was taken immediately. However, laboratory service was initiated in 1903. There was difficulty in finding a suitable location, since many property owners feared to rent quarters for laboratory purposes. After a reasonably acceptable location was found, apparatus and instruments had to be obtained. Work began in March on a small scale. The medical profession responded favorably, and the laboratory began its life of healthy growth.

There was early recognition of the need for a consulting sanitary engineer. However, prior to 1916, the physicians employed by the State Board of Health were called upon to provide advice regarding water supply and sewage disposal, as well as mosquito control. With the need for more authoritative assistance in this field becoming increasingly apparent, authorization for the establishment of a Bureau of Engineering was granted in 1916. It began to function in the latter half of that year. This work evolved chiefly under the direction of Mr. George Simons, the first sanitary engineer, and the present long-time director of the Bureau, Mr. David B. Lee.

The education of the public continued to be a first interest of the State Health Officer. The importance of such education was emphasized again and again for the control of tuberculosis and malaria, in hookworm programs, for better care of mothers and children, and for many other purposes. With some interruption, *Florida Health Notes* was continued. A major endeavor in health education was construction of a mobile health exhibit which was carried to all parts of the State in a three-car "health train." For continuing education, a library was established in space specifically provided for it in the first State Board of Health building.

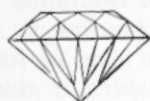
The organization of the State Board of Health was very simple during this period. The work was carried on by the State Health Officer with two, then three, and later in Dr. Porter's administration, up to seven district health officers. There were also "county agents," physicians designated in different counties to serve as local representatives of the State Health Officer. With growth, there was eventually a division of the State into seven districts, each with a physician in charge. Shortly prior to the close of this period, district nurses were appointed.

In the final year of Dr. Porter's tenure, the work of the State Board of Health was organized into six bureaus. The largest of these was the Bureau of Communicable Disease which included the Division of Field Service, the Division of Diagnostic Laboratories, and the Isolation Hospitals. The Bureau of Education was concerned with publications, exhibits, and the library. A Bureau of Child Welfare administered the program for crippled children and gave early attention to the development of medical inspection of school children. The Bureaus of Engineering, Vital Statistics, and Veterinary Science carried responsibilities suggested by their titles.

The budget gradually expanded during these 16 years from \$50,000 or less (including emergency services) to the greatest total in 1916 of \$165,524. Of this, approximately one-half was for salaries including the unchanged salary of \$3,000 per year for the State Health Officer. Printing and costs incident to the health exhibit train were second only to the item for salaries. The cost of biologicals, chiefly hog cholera vaccine for free distribution, was another large item.

The end of this era came in the shadow of World War I. There is no succinct departing comment from the State Health Officer who served so well and so long. It is known that at the age of 70 years he applied for a commission to his old friend Dr. William C. Gorgas of yellow fever fame, then Surgeon General of the Army Medical Corps. He was reinstated to his old rank of Colonel. When the propriety of this action was questioned because of Dr. Porter's age, Dr. Gorgas justified his action by saying that the person concerned was the best health officer in the country. Dr. Porter spent most of

the war years at Camp Johnston in Jacksonville. While records of his service are unavailable, he undoubtedly served with the same vigor and efficiency as he had for 28 years as Florida's State Health Officer. Dr. Porter retired to Key West after the war where he lived until his death in 1927 at the age of 79 years.



## CHAPTER V

# AN ERA OF RETARDED GROWTH 1917-1932

G OVERNOR Sidney J. Catts took office in January 1917. He was as positive a character as was Dr. Porter and they saw little in the same light. The State Health Officer resigned and joined the Armed Forces. Three new members were appointed to the State Board of Health. Dr. W. H. Cox, a private practitioner from Brooksville, was named State Health Officer. To assist him, Dr. Hiram Byrd, a long-time first assistant to Dr. Porter, was named Scientific Secretary.

The May 1917 issue of *Florida Health Notes*, the first after the change of administration, carried the following "Announcement":

"The new State Board of Health has assumed its responsibilities and it is pertinent at this juncture to set forth its position. The Board is fully aware that it takes up its duties under unusual circumstances; under circumstances in which it expects every official act to be the subject of contention; every expression to find its critics. Whatever crisis might arise, it expects to be held in strict account; and in the absence of crises, it expects to be watched with an eagle's eye, watched not only in our own State, but throughout the nation, and by our neighbors, Central America, Mexico and Cuba. But imbued with the belief that public health management is a science and that this science has to be mastered by hard-licks—that health officers are MADE not BORN, we enter upon our duties with less trepidation than confidence." Two things the Board asked of the public—"reasonable time and generous cooperation."

A few changes in personnel were promptly made and others followed. These, the Board said were, "All upon the basis of economy, efficiency or harmony."

Dr. Cox's term was short lived—from 1917 until 1919. During the following decade, four State Health Officers guided the program for short periods of time. In 1919, Dr. Ralph N. Greene, returning from the service, was appointed to complete the term of Dr. Cox, who had been removed due to some difficulty with the Governor. Dr. Green, served until 1921 when he resigned to enter private practice. Dr. Raymond C. Turck, who earlier had contributed greatly to the program for crippled children, was then appointed. In the interim

between his earlier and new appointment, Dr. Turck had been with the Armed Forces. He completed his term in 1925 and then resigned. Dr. B. L. Arms, director of the Diagnostic Laboratories was appointed and also completed a four-year term ending in 1929. He was followed by Dr. Henry Hanson.

During the period under review, the State Board of Health was plagued by inadequate budgets. In 1916 the public health program had been overexpanded and the new board used this as a basis for criticism and as an excuse for elimination of some activities. At its first meeting in 1917, there was the complaint "that the finances were in bad condition, that bills of long standing had accumulated and credit was impaired . . ." The Board immediately took steps to retrench. The promising district nursing service was virtually eliminated. The health education program was reduced to a minimum. The health exhibit train was taken off the tracks. Services in veterinary medicine were eliminated or transferred to other programs. Most of the ongoing programs suffered budget reductions. Overall budgets were cut 25 per cent.

The 1921 Legislature reduced the State Board of Health appropriation 50 per cent, from one-half to one-quarter mill of taxation. The Board was obliged to further curtail its work. This stopped planned expansion and led to the abolition of the Child Welfare and Venereal Disease Bureaus, the latter created in 1918. Accepted and expected services were reduced, with resulting public protests, but the programs had to conform with the anticipated income.

In the decade 1923-32, which included the boom years, demands for service increased with the growth of population. Public health lacked the forceful leadership of earlier years and funds were never adequate to meet needs. Even the publication of annual reports was discontinued and the 1932 summary of the preceding decade was mimeographed for reasons of economy. At the end of this decade, again the revenue was not adequate to operate authorized programs. Cuts fell chiefly on Child Hygiene and Public Health Nursing. Expenditures for public health in 1916 were approximately \$165,000. In 1917 they were about \$125,000 and in 1932, a little under \$210,000. In the boom years annual expenditures exceeded \$250,000 and in one year (1926) were over \$300,000. During this time, the State grew rapidly but for public health these were times of grave malnourishment with retardation of growth.

Throughout this interval the control of communicable diseases continued to be the major activity of public health. The influenza pandemic of 1918 presented problems which surpassed all others. Within one month there were 2,712 deaths in the State from this one cause, with up to 145 deaths on one day. During the four-month epidemic, deaths attributed to influenza and complicating



pneumonia exceeded 4,000. All public health effort was directed toward aiding in care of the ill.

During World War I, the control of venereal disease was recognized as a public duty and a public necessity. As a result, the Congress enacted the Chamberlain-Kahn Act in 1918 creating a Division of Venereal Disease in the U.S. Public Health Service. In the Florida State Board of Health, Education, Medical, and Repressive Divisions were included in a newly created Bureau of Venereal Disease. All media known and available were used for educational purposes. The American Social Hygiene Association loaned the bureau its field truck which went from one community to another giving "performances" consisting of lectures and movies and distribution of pamphlets and posters. Special programs were arranged for physicians. Clinics were opened, some for a few months and some for a year. Neoarsphenamine for the treatment of syphilis was furnished to physicians from the State Board of Health. The findings and work in the clinics led to work with industry. One lumber concern employing 1,500 men was found to have approximately 900 employees infected with venereal disease. There were similar findings in other industrial plants. In 1920 more cases of venereal disease were reported by physicians than for the total of the next three reportable diseases. Soon thereafter the venereal disease control activities declined and continued at a low level for the remainder of the era.

There were extensive epidemics of dengue fever in 1919 and 1921. But it was malaria which called for and received vigorous attention. This disease had harassed public health officials since the creation of the State Board of Health. Florida's swamps and marshes, long coastline, and many streams and lakes offered choice breeding places for mosquitoes. These insects made life miserable for people and for animals during the summer. In 1919 it was decided "something must be done" since the economy as well as the people was suffering. A look at the vital statistics disclosed that Taylor County, a small rural county, had the highest death rate from malaria in the State. The first intensive project for mosquito control was undertaken there and proved highly successful. The generosity of the Burton-Swartz Cypress Company, a large lumber concern in the City of Perry, helped to make the project possible. It appropriated \$10,000 with the hope that results of the work would enable it to keep its men on the job. Heretofore, sickness, largely malaria, had cut into production to an alarming degree. The company was the source of livelihood for a large part of the community. Because of this, the Perry City Council provided \$15,000 toward the project and Taylor County \$3,000, with the State Board of Health furnishing engineering assistance and supervision.

In spite of the skepticism of the general population, the mosquito control project went forward. Upon completion of the program, a house-to-house survey disclosed that malaria incidence had been reduced in excess of 90 per cent, and the general health of the population was much better than it had ever been.

Taking its cue from the Perry experience (which was completed in 1921) and as a followup on earlier sporadic efforts, 1922 saw the beginning of a first statewide campaign for mosquito control. The Bureau of Sanitary Engineering made this a primary objective. The Perry project had demonstrated that mosquito control was possible and practical. In many cities and areas "model" programs were initiated and the Bureau had never been busier or results more quickly noted.

George Simons, Chief Engineer for the State Board of Health, traveled the State lecturing and showing pictures, movies, and exhibits. Posters, pamphlets, and all available media were used to inform the public of ways in which mosquito breeding might be prevented. Under Mr. Simons' direction, standards were promulgated and plans and specifications for privies and sewage disposal plants were published. Regulations for handling the sale of bottled waters were set forth also.

Beginning in 1908, hookworm control was a continuing serious concern. Physicians, nurses, teachers, and others recognized the enervating effect of this disease on both children and adults. Studies had shown the cause of the disease and methods of treating it, but the acquisition of knowledge and its use were far apart. The Rockefeller Foundation had spent five years and one million dollars in the Southern States finding out that clinics alone would not solve the problem. An "intensive unit plan" was developed and initiated, financed jointly by the Rockefeller Sanitary Commission, the Florida State Board of Health, and the county selected as the "unit." Under this plan, visits were made from house to house, the program explained, specimens gathered, and free treatment offered where indicated.

Taylor County had awakened to the value of good health through the impressive results from its mosquito control campaign. It now wished to further improve the health of the county by ridding it of hookworm. With the aid of the State Board of Health, the program was started. Citizen cooperation was said to be exceptionally good. Dr. George A. Dame, District Health Officer at the time and later director of the Bureau of Local Health Services, reported that 544 sanitary privies were constructed in Taylor County during the campaign. This was a tremendous building program for that sparsely populated area. An educational campaign paralleled construction. Before the program a survey showed that 60 per cent of the popula-

tion had hookworm ova, two years later a comparable study revealed a reduction to 46.6 per cent.

Tuberculosis received continuing attention. A major effort was made to obtain hospital facilities but the best which could be done in this period was the development of clinic services.

Epidemics of typhoid fever were a recurring source of concern. A Miami outbreak in 1921 was attributed to contaminated oysters. Death and illness from diphtheria were still common but were decreasing in number as a result of a program of active immunization which was started in 1926. Smallpox was now "well under control." At that time poliomyelitis was not a serious problem in the South.

Two rarer infections were given serious attention. Trachoma, a chronic eye infection, was recognized among school children and received major attention by those working in child welfare. Leprosy was viewed with grave apprehension even though there were few cases and these chiefly in Key West. The development of a leprosarium was considered but was abandoned for lack of funds and fear of its influence on tourism.

It took the Federal Sheppard-Towner Act in 1921 to bring the lagging maternal and child health program to the foreground. This act provided \$5,000 each year to states accepting the terms of the act and matching funds, dollar for dollar. The Children's Bureau of the U.S. Department of Labor handled the funds. Florida's Legislature accepted the terms of the act and made the necessary appropriation for participation.

In 1922, the U. S. Public Health Service Child Hygiene Unit visited Florida at the invitation of the State Board of Health and with the backing of the Florida Federation of Women's Clubs, then very active in child welfare work. The visitors pointed out the need for improved programs to combat the high infant and maternal death rates, which by comparison with other states showed Florida in an unenviable position. The Florida Medical Association concurred in the recommendation and working with the State Board of Health designed and initiated a program to provide better care and improved facilities for babies and their mothers. In 1921, the infant death rate per 1,000 live births for Florida was 80—for whites 66 and nonwhites 112. These high rates were in line with those for the U.S. Birth Registration Area.

With Sheppard-Towner funds received in July 1922, an "extensive" program of education was launched, with four district nurses to guide it. These nurses were to educate mothers, expectant mothers, and midwives. They also gave postnatal instruction. A program for midwives on a statewide continuing basis was started.

While engaged with infant welfare, a report of the Bureau of Child Welfare also told of the examination of 90,000 school children, three-fourths of whom were suffering from some remediable or cur-



Midwifery in the early years was often passed down from mother to daughter. Such a family tradition is shown (upper left). Florida had many "grannies" who dropped from practice when licensure was required. Here (upper right) is one who stood the test as evidenced by her bag and tag. Classes for midwives (below) began in 1914. Most attended eagerly and brought in their bags for inspection. There were more than 2,000 around 1900 and approximately 200 in 1964.





able defect. Many indigent children received free treatment from local physicians. Where indigency was not a problem, reporting to parents was all that was considered indicated. Eye clinics were established in 46 cities. The Modern Health Crusade, an educational program aimed at building better health habits, was started by the Florida Tuberculosis and Health Association. Cooperation was given by the State Board of Health, the State Department of Education, the Florida Federation of Women's Clubs, state universities, and local school personnel. Classes for teachers were given at the universities so that they would be in a position to teach their students. This program became very popular and swept rapidly across the state.

The maternal death rate was acknowledged to be "very high" but it was thought that until the Legislature stepped into the picture and required licensure of midwives, little improvement could be anticipated. This was attained only at the end of this period. In an effort to improve the caliber of maternal and infant care, a series of postgraduate courses for physicians was offered in various parts of the State.

This era saw the establishment of the first cancer clinic in 1921 in Jacksonville. This clinic was for the care of indigent cases with inoperable disease. Radium treatment was provided and this and the physicians' services were contributed without cost by Dr. Ralph R. Holden, who with Dr. R. N. Greene (former State Health Officer), organized this pioneering clinic.

In 1926 and 1928, two hurricanes struck Florida, trying the skill, knowledge, and physical stamina of staff members of the State Board of Health. In September 1926 a hurricane whose devastation had never before been equaled pummeled the lower east coast. Loss and destruction of property in varying degrees ran into many millions of dollars. In 1928 a second hurricane, more costly in lives, struck Florida. This storm hit most heavily in the general area of Lake Okeechobee where hundreds of migrant laborers were at work in the fields. When the first news of disaster reached Jacksonville, the State Board of Health sent personnel to the scene with tetanus antitoxin, typhoid vaccine, and other biologicals in large supply. Clinics were set up and public health nurses administered "immunizing" shots while other personnel took part in chlorination of water supplies, care of sanitation needs, food inspection, and other problems resulting from the disaster.

During this period there were some bright spots in public health programs in spite of the inadequate budget. One was the establishment in 1931 of a Malaria Research Station at Tallahassee. Dr. Mark Boyd, a well-known malariologist, was appointed as director and was paid by the Rockefeller Foundation. In an interesting and unusual study, the State Mental Hospital at Chattahoochee cooper-



ated with the State Board of Health and the new research facility. Naturally-induced malaria was employed in the treatment of paresis and neurosyphilis. The program was highly scientific and the researchers were pleased with the improvement of the patients studied. This work was important to Florida but also had worldwide significance.

To further accelerate the control of malaria, in September 1932 the Division of Malaria Control Studies was established. Dr. T. H. D. Griffiths, malariologist of the U.S. Public Health Service, was assigned to direct the program. This was a part of the country-wide study of the malaria parasite index. The plan was to include Florida counties in which the disease was considered of major importance among school children. A group of counties with a mortality rate of 100 or more per 100,000 population was chosen for the initial study.

The U.S. Department of Agriculture Bureau of Entomology and Plant Quarantine in 1932 established a mosquito research station at Orlando. It is still functioning in 1964 though now transferred to Gainesville.

In 1918 Dr. Stewart Thompson began his long tenure as director of the Bureau of Vital Statistics. The following year Florida was admitted to the Death Registration Area and in 1924 to the Birth Registration Area, this indicating that the reporting of deaths and births had become relatively complete.

Possibly the most important event of the entire period was inauguration of full-time health departments in three Florida counties. Taylor County again came into the limelight, the first to establish a county health department. Leon County followed in 1931, and Escambia came in third in 1932.

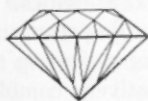
For a short time the work with crippled children was carried on in Ocala. Thereafter it was continued in Jacksonville on a limited basis. In 1929 with a demand for more adequate services, a separate Crippled Children's Commission was established by the Legislature; since that time responsibility has rested with this Commission.

The significance of nutritional deficiency as a cause of human disease was recognized in this period. Pellagra had been a substantial problem accounting for 100 to 200 deaths annually and for much debilitating illness. Field studies in the Southern States established that the cause of the disease was deficiency in specific nutritional elements. In 1932 the Legislature authorized the free distribution of brewers' yeast for treatment and prevention of this disease.

At the end of 1932, the Florida State Board of Health had four bureaus—Communicable Diseases, Laboratories, Engineering, and Vital Statistics, also five divisions—Public Health Nursing, Malaria

Research, Malaria Control Studies, Library, and Drug Inspections. There were five regional medical officers, one sanitary engineer, six district sanitary officers, and five public health nurses, and there were a central and four regional laboratories and the three county health units.

This period closes during Dr. Hanson's first full term as State Health Officer. His service continued to the beginning years of stimulated growth.



RELIEF, S  
AND STIN

THIS PERIOD  
as State Health  
other health  
McPhail

Office and Dr. W. H.

The era is marked  
the depression and  
health development  
and funds for State  
was implemented be  
World War with the  
sion of programs for

This Chapter begins  
for public health work  
to be cut. Personnel  
were reduced to a bare  
of the program were  
initial planning for  
only three projects  
at an estimated cost  
of environmental health.  
the the beginning of  
times.

For a part of this  
ment authorized a wa  
als needing employe  
raising program "the

RELIEF: Those who  
nately of the main  
State program, one  
WPA Works Program  
Adm. Administration  
Program.

## CHAPTER VI

# RELIEF, SOCIAL SECURITY, AND STIMULATED GROWTH 1933-1945

**T**HIS PERIOD BEGINS and ends with Dr. Henry Hanson as State Health Officer. Between his two terms, three other health officers served. They were Drs. W. A. McPhaul and A. B. McCreary, both of whom died in office, and Dr. W. H. Pickett.

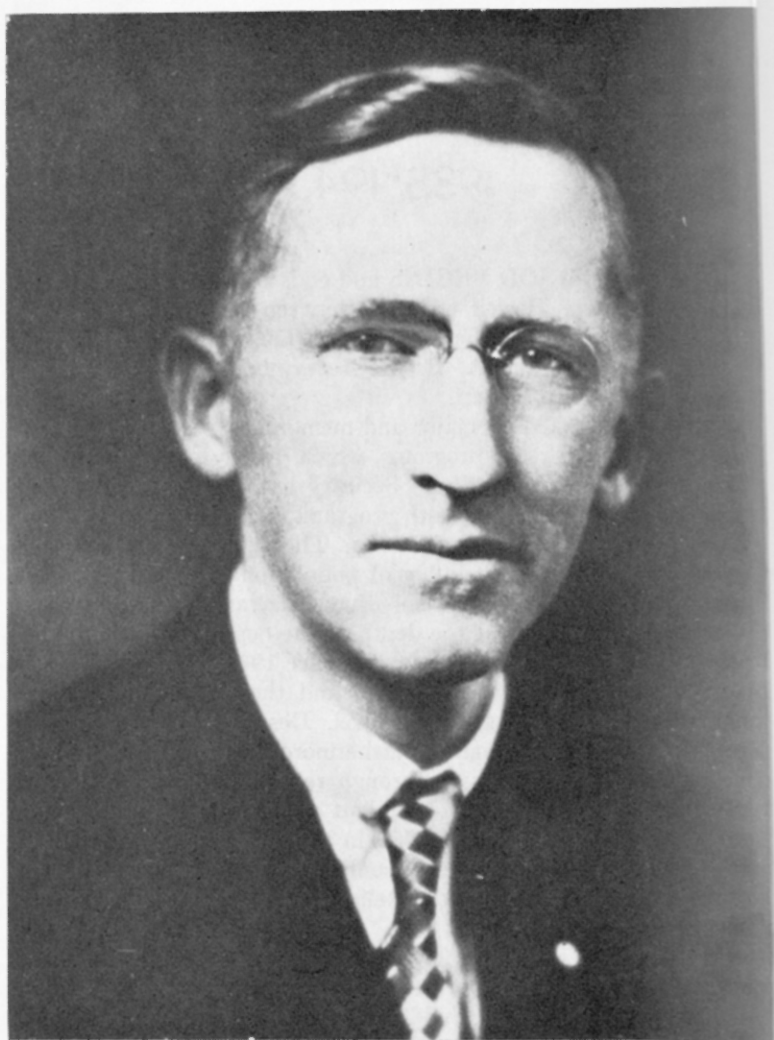
The era is marked by major and memorable events. There were the depression and relief programs, which greatly stimulated public health development. The Social Security law, which provided Federal funds for State public health programs, was enacted in 1935 and was implemented beginning in 1936. Then there was the second World War with the great influx of population and the vast expansion of programs for the control of malaria and venereal disease.

This Chapter begins at the depth of the depression. The budget for public health work was the lowest since 1923. Expenditures had to be cut. Personnel were released, and the already low salaries were reduced to a bare subsistence level. Despite this, basic elements of the program went forward. Furthermore, this was a year for the initial planning for expansion through relief expenditures. Though only three projects were funded, plans were made for construction at an estimated cost of \$8,000,000 in sanitary engineering and environmental health. There were only three public health nurses the the beginning of the period. Relief projects in nursing were still rumors.

For a part of its "work for all" programs, the Federal Government authorized a variety of projects for different types of individuals needing employment. Suddenly, resources were available for a nursing program "such as the State had not dreamed of." Early in

---

RELIEF: Those who lived and worked in the early thirties will think immediately of the massive federal programs of "relief" in the great depression. Varied programs, one after the other, were known best by initials such as WPA (Works Progress Administration) and FERA (Federal Emergency Relief Administration). These led toward the later on-going "Welfare" programs.



*Dr. Henry Hanson, Florida State Health Officer  
(1929-1935 and 1942-1945)*

## HENRY HANSON

Dr. Henry Hanson, for whom the Central Laboratory Building is named, served the people of Florida for 16 years beginning in 1909 when at 32 he was named director of the Division of Bacteriologic Laboratories of the State Board of Health. He became an authority on tropical medicine and a well known scientist.

Dr. Hanson was an individualist, of Swedish descent and like his Viking forebears, was ever alert for adventure. He sought rather than avoided the unusual, particularly when it was connected with the scientific world in which he was at home.

Henry Hanson was born in Glenwood, South Dakota, of Swedish parents who were among the first settlers. Henry's early years were spent on the farm but at 17 he entered University of South Dakota. He graduated in 1902 with an A.B. degree. During several years before graduation and after, he served as an assistant in chemistry. This further whet his taste for science and led to an A.M. degree and eventual enrollment in Johns Hopkins University, School of Medicine. He obtained a degree of Doctor of Medicine in 1908.

While serving in Florida, World War I was declared and young Dr. Hanson went into the Army Medical Corps. Soon he was off to Panama. It was there at the close of the war that Dr. Hanson received a call to go to Peru "to study sanitary conditions in Lima and the Rimac Valley.

The Hansons' took off for Peru. What happened there and how he conquered the dread "Yellow Jack" is told in Dr. Hanson's own colorful verbiage in his book "The Pied Piper of Peru." His personality makes its way felt through the pages, giving a vivid picture of the man who so ably directed the health program in Florida in two separate terms, 1929-1935 and 1942-1945. He is the only State Health Officer to be so honored.

Dr. Hanson knew Florida from his years in the laboratories. He knew what was needed and constantly urged Legislative bodies to answer his pleas for help.

Dr. Hanson retired from public health in 1945, the close of his second term. He died in Jacksonville, February 13, 1954 at the age of 76.



1934 the Division of Public Health Nursing fell heir to 11 supervisors and 275 county nurses through the Federal Emergency Relief Administration (FERA) Nursing Project. These nurses were assigned to districts in the State. They provided nursing care to relief recipients and others, and carried on a generalized nursing program in public health with emphasis on maternal and infant care. They also participated in cooperative programs and hookworm and malaria surveys. Each county was assigned one or more nurses. More attention was given parent education and communicable disease control. The statewide midwifery training program again became very much alive. There were then 1,552 registered midwives. Exhibits, lectures, pamphlets, and demonstrations were used in this educational campaign. It was early in this year that Miss Ruth Mettinger joined the staff of the State Board of Health as director of Public Health Nursing.

There were major projects in malaria control, privy building and public works. The time was ripe for malaria control. There had been special research and community surveys. The Florida Anti-Mosquito Association (plus the annoyance of the insects themselves) resulted in a continued high interest in mosquito control. Broad programs were planned and authorized. Suddenly hundreds of men were available and active in projects directed toward the control of mosquitoes. These included massive programs of ditching to prevent breeding of salt marsh mosquitoes, the major insect pest in the State. For home sanitation and hookworm control and to provide needed local employment, privy building became the order of the day. Construction of water and sewerage facilities required by Florida's growing cities was authorized. The responsibility for directing and planning was placed in the Bureau of Engineering. A complex organization was speedily developed. Some 1,500 men were engaged in general community sanitation, about 4,500 exclusively in malaria control, and another 1,000 in pest mosquito control.

In this year of forced growth the Legislature reestablished the halfmill tax but put a limit of \$180,000 in state funds for public health services for an estimated population of 1,500,000.

The relief projects in sanitation and mosquito control continued through 1935, with the number of men employed fluctuating but at no time more than one-half the maximums indicated for the preceding year.

In the Division of Public Health Nursing a planned program was designed to transform the relief nursing activity into an ongoing program. During the year, the emergency nursing program was reduced and then terminated, for a short interval only, at the end of the year. A substantial number of nurses were retained in public health programs with funds from various sources. Irrespective of the source of support, these nurses were beginning to evolve into a

consolidated group. They were ready for further growth, which came with the passage of Social Security legislation in 1935. The significance of the public health component of Social Security legislation to the growth of public health is indicated clearly in the State Health Officer's brief letter of transmittal of the 1936 annual report. He states:

"The year has been principally distinguished, as in all States, by the addition of Social Security funds to the regular budget. Through the use of these funds, we have been able to establish several new and much-needed services, namely, a Division of Tuberculosis Control, a Bureau of Dental Health, Bureau of Local and County Health Work, Bureau of Maternal and Child Health, and a Bureau of Public Health Education.

"Particular emphasis has been laid on establishment of local health work. During 1936, eight full-time county health units were formed. Financial assistance for these units came from Federal, State and county funds."

Through two Works Progress Administration (WPA) grants and a special grant from the State Legislature, two additions to the headquarters of the State Board of Health in Jacksonville were made possible. The first addition, which provided needed space for the Central Laboratory, and also an auditorium for health, medical, and dental meetings, was completed early in 1937. The second addition, which housed the Bureau of Vital Statistics, for many years in rented quarters in a downtown building, was completed during early 1938.

In the initial year of its operation, Social Security funds became available on March 1, 1936. The year was predominantly one of planning for expansion of new programs. Four new bureaus and one new division were established. But major emphasis by all in public health was on development of county health units.

Florida had relied upon a loosely woven district scheme, with the State divided into five areas. Each had a health officer, sanitation officer, a public health nurse and clerk. Headquarters was in some central point. Districts usually comprised from 12 to 15 counties embracing areas with populations of more than 300,000. This plan was inadequate to provide health protection.

Recognizing the inability of the district organization to serve so many people over so vast an area with health service, the State Board of Health and the Bureau of County Health Work bent its efforts toward an extensive program of health education for the expansion of county health departments in Florida.

At the beginning of 1936 Florida had three county health units. During the year five new single county units, one bi-county, and one serving four counties, were established. There was also a mobile health unit with the same personnel as a county health unit. The mobile unit met special problems, conducted surveys as requested,

and aided established units, but primarily was used to demonstrate county health service. A new era in public health was opening.

Relief agencies with new alphabetical names provided for 150 nurses, aided in water and sewage plant construction, continued mosquito and malaria control, and still further improved community sanitation. Up to this time, the State Legislature continued to drastically restrict funds for public health; only \$225,000 was made available in 1936. Thus it was relief and Social Security funds which permitted and stimulated growth.

Advanced training was needed by the battery of workers in the new county health units. In 1937, through Social Security funds, 29 public health workers from Florida went to universities for graduate training. These included physicians, nurses, and sanitarians. Upon their return, each was placed in a county health unit. The Bureau of Maternal and Child Health in cooperation with the Florida Medical Association, offered a six-week refresher course in obstetrics and pediatrics in the western part of the State. The association contributed obstetricians and pediatricians as speakers. Coupled with this were demonstrations in the care of premature infants.

In 1937, as in following years, major emphasis was on local health departments. By the end of 1938, 16 counties were served by 15 full-time health units. Two years later the number had reached 25 counties and by 1945, the end of the era, 26 units served 37 counties. This covered a little more than 80 per cent of the State's population. The director of the Bureau of County Health Work, Dr. McCreary, later State Health Officer, commented, "Within the past few years public health in Florida has made gigantic strides. It has come a long way but it is still faced with a lengthy and arduous journey."

To help see in unbiased perspective both problems and solutions, the State Board of Health and other cooperating agencies invited the American Public Health Association to send a team of consultants to the state to make a study and to provide recommendations for improvements. This team arrived in 1939. Malaria and hookworm, which had so insistently plagued public health workers, were emphasized in their report. Four counties had a malaria death rate of over 100 per 100,000 population, and 16 additional counties had a rate of more than 50. By the standard yardstick of 300 cases per death, these figures pointed to at least 102,000 cases of malaria per year in Florida. In 56 of 67 counties studied, the team reported three with a hookworm incidence of over 70 per cent in the rural white population. In the remaining counties the rate gradually declined to 7.1 per cent.

The report directed attention to other problems also. The tuberculosis death rate was well above that for the nation. It was esti-

mated that there were 7,700 active cases in the State. An average of approximately 1,790 babies died each year in the first year of life; 50 per cent could have been saved by application of available scientific knowledge. The State's maternal death rate was fifth from highest in the United States. At least 40 per cent of these deaths could have been avoided if public health services had been available and had been used in conjunction with the services of the medical profession. Florida, more than any other State, faced the possibility of reintroduction of yellow fever due to the existing large number of *Aedes aegypti* mosquitoes and its strategic location for international air bases and ports of entry. Florida had the second highest rate of blindness in the country, possibly traceable to the high rate of syphilis and gonorrhea and the absence of a law requiring protection of the eyes of new born babies from gonorrheal infection. (This law was not enacted until 1941.) Florida had a venereal disease rate equal to, if not exceeding any other state.

Bringing to a close its report to the State Board of Health, the team members did not fail to point out that, "Health services received a very small part of Florida's tax dollar and yet the State Board of Health was expected to safeguard the people who provide the taxes." The fact that appropriations from the State Legislature had remained the same since 1933 (six years) was not overlooked. The report further states, "Appropriations for the care of animals, for the provision of roads and construction of buildings, for agriculture, parks and many other things" were more generous than those for programs to protect the public's health. The contribution to Florida's public health from the Federal Government and philanthropic organizations was mentioned as saving the State from a more unfavorable health situation.

Before extending the invitation to make the study, members of the Board agreed to form a citizens' committee. This was to be an interpretive group, dispensing to the public information on the health situation in Florida as found by team members. Approximately 2,000 persons were appointed to a Statewide Public Health Committee, heard the report, and were fired with zeal. They told the story frequently and well. The Committee constituted the greatest assemblage of volunteers dedicated to the interest of public health that the state had ever known. Their learning experience was an impressive contribution to health education in Florida. Giving the public the grim facts on the health situation in their state was a daring approach. The plan worked. Within two years the State Health Officer was able to report that 58 per cent of recommendations presented by the study team had been, or were being, put into effect. Most of the remaining ones required legislative action. Florida's public health renaissance had just begun. Although the

committee slowly disintegrated, inspired and informed individuals worked tirelessly to make Florida a better place in which to live.

The years 1933-45 were a period with favorable development in multiple fields of public health. The first mobile unit for chest X-rays was put into service. An extreme example of its productiveness were the findings among 1,000 prisoners examined in Raiford; 14 proved to have active tuberculosis and many additional suspicious cases were found. The first State tuberculosis hospital was opened near Orlando in 1938. This was a beginning but inadequate to meet public health needs.

In the Bureau of Maternal and Child Health there was need for a general program. However, special efforts were directed toward controlling the practice of midwives, only a few of whom had training other than experience. Special programs were begun to improve the care of premature babies. The Bureau of Dental Health developed programs of education, dental examinations, and service to indigent children. The Bureau of Narcotics Control grew into its continuing unique program. Laboratory services increased but with too little expansion in facilities and personnel. Sanitary Engineering had a wide and varied program, including activities now distributed among the four divisions of the Bureau of Sanitary Engineering, and also the Divisions of Sanitation and Veterinary Public Health and the Bureau of Entomology.

Some activities warrant special emphasis. In 1940 Florida began a newly developed and coordinated school health program. For many years there had been confusion as to who was responsible for what. In the summer of 1939 the State Department of Education, the State Board of Health, and the voluntary health agencies jointly arranged a conference at the University of Florida to discuss with health and education leaders plans for a desirable school health program. Representatives of all organizations with an interest in school health were invited. Each was requested to tell what his organization felt should be done. A bulletin was then prepared by well qualified consultants incorporating many of the recommendations. For years the resulting Bulletin, 4-D, "A Program of Health Services for Florida Schools" has been the guide for the school health program. It has been renamed "A Guide—Health Programs in Florida Schools."

In 1939 the State Legislature adopted the "State Sanitary Code Law." On the basis of this authority, the Bureau of Sanitary Engineering in 1941 drew up the first State Sanitary Code containing chapters on subjects relating to sanitation and quarantine necessary for protection of the public health. This was adopted by the State Board of Health. This code, often amended and constantly under study for revision, has evolved into a widely distributed document of increasing importance.



Then, as now, migrant laborers were a problem. In the early 1920's Florida became a substantial producer of vegetables and fruits. These crops demanded workers. This State became the home base of increasing numbers of agricultural migrants who spent approximately six months each year in Florida. They then departed to work in later maturing crops along the eastern seaboard, returning to Florida each fall. These workers, chiefly Negroes from this country and the nearby Caribbean, brought health problems with them and also found less than favorable conditions where they worked. The housing and general sanitation of the living quarters of farm workers were reported "reprehensible." The State Board of Health and county health departments in the areas in which the migrants worked began to provide many services.

In the later years of the period 1933-45, the arrival of migrant construction workers and their families gave rise to sanitation problems. Jobs on construction projects for military camps and bases were available. Hoards of people swarmed into Florida, notably the "Okies," bringing bag and baggage in old and broken down vehicles. Unable to find housing, they parked their conveyances under a tree near a construction job and there they lived—or tried to live. Newsmen quickly heard of this great movement to Florida and arrived with cameras in hand to photograph Florida's "Grapes of Wrath." In some isolated rural areas, such as Camp Blanding (in the Jacksonville area) where large military installations were under-way, no sanitary facilities had been provided. Often the only source of water was a nearby lake. Small towns and villages near the building sites were overwhelmed with the influx of these migrants. First viewed as a boon, attitudes quickly changed, and the visitors were seen by some as a bane. In local homes open porches were enclosed, rooms added. Beds were installed where beds had never been before. Three men frequently "spelled" each other in one bed leading to the term "hot bed." The health department personnel shuddered. Eventually in these war areas the Federal Government made funds available for the installation of safe water supplies and sewage disposal plants. Sanitary engineers and their co-workers moved with dispatch.

One wartime program which reached every part of the State was the Emergency Maternity and Infant Care Program. More than 40,000 babies were born in Florida in 1943, and the number increased each year. Many of the fathers of these babies were in one of the branches of the Armed Services and could not provide maternity medical and hospital care for their wives and infants. With funds from the Children's Bureau, and an approved medical and hospital plan, the State Board of Health suddenly was responsible for administering a very active medical care program. Within a few weeks of the announcement of the plan, 215 applications had

been filed with the Bureau of Maternal and Child Health and 100 physicians had agreed to participate. The program grew at an unexpected rate until within a year 60 hospitals were accepting patients and 3,125 applications had been approved with many more awaiting approval. The following year (1944), 10,345 applications for hospital care were received. According to the director of the Bureau of Maternal and Child Health, the program absorbed so much time and effort that little else could be accomplished.

After years of battling mosquitoes, malaria was still at the head of the list of diseases to be conquered. Dr. John E. Elmendorf, Jr., malariologist of the Rockefeller Foundation, was appointed in 1941 as director of a newly established Bureau of Malaria Control. That same year, approximately 100 pages, or one-half of the annual report, was given over to this disease. Florida's death rate for malaria was third from the highest among the states. Only Arkansas and Mississippi had higher rates, South Carolina's rate was close behind Florida's. An analysis of deaths over a 10-year period, 1930-39, showed that 2,749 Floridians were reported to have died of malaria, an average of 275 persons per year. Undoubtedly more died from the disease but deaths were not accurately reported.

High hopes were held for the new Bureau, its distinguished director, and the program it would pursue. Dr. Elmendorf came to the State Board of Health after four years at Pensacola in charge of a demonstration project sponsored jointly by the Rockefeller Foundation, the U.S. Public Health Service, the Florida State Board of Health, the City of Pensacola, and Escambia County. Plans were made for a malaria survey of the State in cooperation with county health units. Within a few months the Federal Government charged the U.S. Public Health Service with the responsibility of conducting a program of malaria control in war areas. Personnel of the Bureau of Malaria Control joined with those from the U.S. Public Health Service for an all-out campaign against malaria. A shortage of trained workers made the task difficult. To a substantial degree Florida served as a training center for U.S. Public Health Service personnel and those of the Army and Navy for the widely extended programs of malaria control in war areas. With the supplementary aid of the newly introduced DDT, this program proved to be one of the outstanding success stories of public health in Florida and in the world. The rapid decline in mortality and morbidity continued toward complete eradication from the State.

But the major public health program of this period was venereal disease control. Heretofore this had been a subject for subdued discussion. But Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service, took the wraps off this problem by developing a broad educational campaign. Health departments were spurred on to bigger and better efforts. Funds and personnel were made

available, including the assignment of Dr. Wilson T. Sowder, present State Health Officer, to the State as director of Venereal Disease Control. The introductory paragraph in his report for 1942 is as follows:

"The past year has been a momentous one for venereal disease control in the State, because of the enormity of the problems presented to the Division of Venereal Disease Control. Not only do we have the normal ones which have been with us for years, but also the additional problems, arising from the presence in the State of large concentrations of military and naval forces. The scope of the venereal disease problem in the state was brought to the attention of the Division, and to the public itself, by the first really accurate figures on the prevalence of the venereal diseases in the history of the State by the examinations of Selective Service registrants." Data were presented showing that five per cent of Florida's young white males and 40 per cent of the nonwhite males had positive blood tests usually indicative of syphilis infection. Particularly disturbing was finding that Florida's venereal disease rate was one of the three highest in the country for the whites and the highest for the nonwhites.

In 1933, the earliest year of this period, there was scarcely any acknowledgment that venereal diseases were a public health problem. Under the leadership of the Public Health Service a Division of Venereal Disease Control had been established in the State Board of Health in 1938. Development of treatment clinics was the prominent activity. But the peak of the effort was during the war years. There was the stimulus of disturbing findings of the Selective Service examinations and the urgent demand to prevent loss of the manpower so needed in the military effort. The number of new cases of syphilis reported in 1936 was 3,287, while with more adequate reporting in 1943 it reached 33,601. Venereal disease clinics grew to a total of 166 in 1943. At the beginning of that year, approximately 27,000 cases of syphilis were under treatment in clinics. Drugs were also distributed to private physicians. Treatment was protracted. To better assure continuity of medication, Rapid Treatment Centers were established in 1943. The introduction of penicillin followed in 1944 with the dramatic change in the treatment of both syphilis and gonorrhea.

Throughout venereal disease casefinding was a central activity, in which the laboratory had a major role. Law enforcement was directed against prostitution. Public education created a concerned and understanding public. There was a close partnership between public health workers and military officials and agencies. However, despite the vigorous activity, progress in control came slowly. Today the problem still remains one of substantial public health concern.

The years 1933 through 1945 were ones of expansion of public

health services in Florida. All activities were involved, though few have received adequate mention in this report. There was stimulated and almost forced growth. State funds allocated for public health remained at a low level in the early years and throughout the whole period scarcely doubled. However, the amounts spent through relief, Social Security allocations, and direct aid by Federal agencies, multiplied by many times the total expenditures for public health purposes. Florida was prepared for the progressive developments to follow.



## CHAPTER VII

# PROGRESSIVE DEVELOPMENT 1945-1964

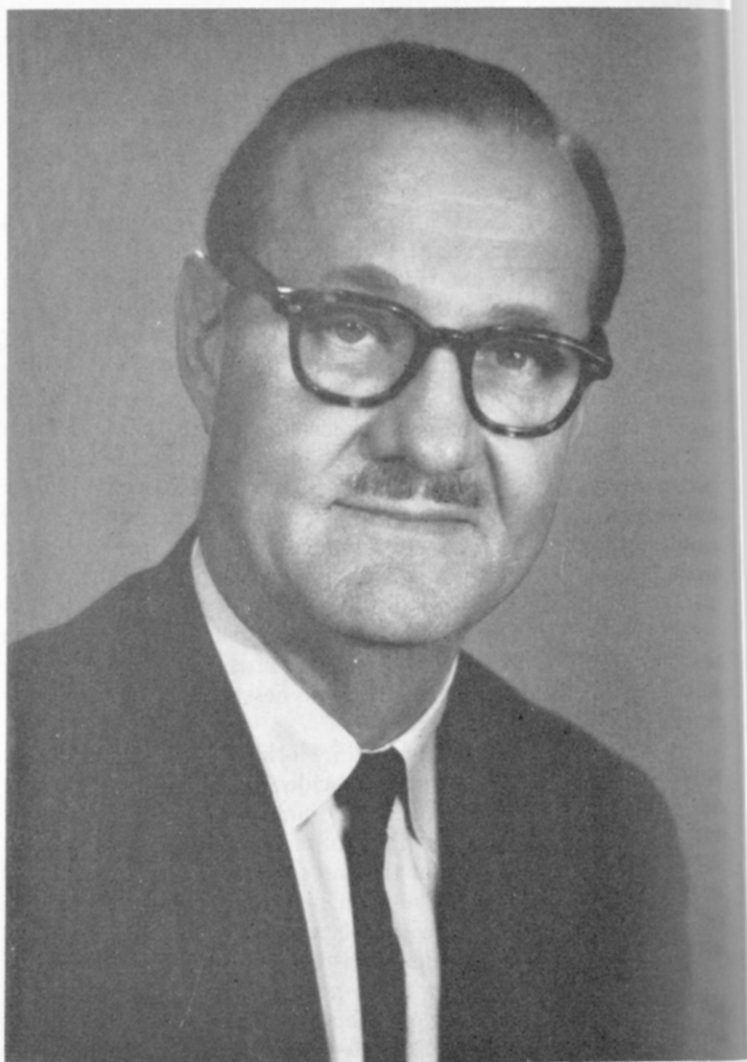
THE LEADERSHIP of Florida's public health programs since 1945 has rested with one State Health Officer, Dr. Wilson T. Sowder. His well recognized practice has been to select program directors and to place on them responsibility as the authorities in their fields. The review of the work of this period, to a substantial degree, will be a summary of varying activities under this type of direction. But for all programs, there has been the consistent guiding philosophy of the State Health Officer. His influence is responsible for the very favorable relationship between public health and practicing physicians, individually and collectively. He has given much attention to Federal-State and State-local relationships and has been continuously involved with overall planning and with professional organizations and other agencies in the health field. In publications and in papers to state and national bodies, Dr. Sowder has also given detailed consideration to public health problems of particular interest to him. These aspects of public health in this period are described in Dr. Sowder's own words.

First, the spirit of public health in Florida during this period is indicated by these brief and rather incidental comments. "We are in this work because we like it. We think it important." "Public health has a subtle charm and the embracing of it endows us with a quiet and lasting satisfaction that no other specialty of medicine can give." These attitudes have been highly infectious.

Concerning relationships with the medical association and the medical profession, Dr. Sowder advises his health officers: "It is impossible for a health officer to do good work without proper relationships and understanding with his fellow physicians in private practice. The public interest is better served by strengthening the private practice of medicine and by delegating only these problems to public health which cannot be handled adequately on a retail basis in private practice. Work closely with the public health committee of the county medical society."

He advises the members of the Florida Medical Association that: "The voice of the medical society is heard and heeded in the councils





*Dr. Wilson T. Sowder, Florida's State Health Officer*

## WILSON T. SOWDER, M.D.

Wilson T. Sowder, State Health Officer of Florida, is a native of Virginia. He holds the degrees of Doctor of Medicine from the University of Virginia and Master of Public Health from the Johns Hopkins University. His broad career in public health administration has brought him prominence not only in Florida but nationally and internationally.

Dr. Sowder began his professional career with the U.S. Public Health Service. His first assignment in Florida was in 1940 with the Escambia County Health Department at Pensacola. Later he became director of the Hillsborough County Health Department, and subsequently headed Florida's Venereal Disease Control Program. He was Assistant State Health Officer under Dr. Henry Hanson. On the retirement of Dr. Hanson, Governor Milliard Caldwell appointed Dr. Sowder as Florida's eleventh Health Officer. He has served in this post under six Governors, since September 1945.

He has held high office in many professional organizations including the American Medical Association, the American Public Health Association, committees advisory to the Surgeon General of the U. S. Public Health Service, the World Health Organization and the International Cooperation Administration.

Under Dr. Sowder's leadership Florida has made many advances in public health, including the establishment of health departments in every county, the inauguration of a program for hospitalization of the medically indigent, development of a statewide mental health program and organization of one of the outstanding research programs in state health departments. Pioneering and constantly growing programs in environmental health and chronic disease control have been evolved. Expansion of public health nursing to include care of the sick at home, construction of many modern health department buildings, and development of regional public health laboratories, all have received effective attention during this period.

Perhaps Dr. Sowder's outstanding contribution to Florida's public health programs have been his breadth of vision and deftness of leadership in working with the many individuals, groups, and official and voluntary agencies, both State and national, who contribute to Florida's progress in health. Florida citizens can look with satisfaction and pride at the status of the State's public health program, recognizing it as a leader among public health programs in the nation.

of the State Board of Health. A good health department is a credit to the medical profession; a poor one reflects on your public spirit-  
edness. We cannot have a good statewide public health program  
without your cooperation and assistance. Health departments need  
constructive criticism and guidance from members of the pro-  
fession best able to give it. An attitude of indifference is what handi-  
caps us most."

There has been an open sharing of opinions and feelings with  
practicing physicians on the subject of government in medicine.  
"Too much government at any level is wrong. Public health physi-  
cians have opposed governmental intervention in medical practice  
along with their brethren in private practice. Socialized medicine  
almost inevitably means the decline or end of public health and  
preventive medicine as we know it."

The organization of programs of hospitalization and medical care  
for the indigent absorbed the joint attention of the Florida Medical  
Association and the Florida State Board of Health. A problem and  
a hope are stated thus: "The Federal legislation places authority for  
medical care of the indigent at both Federal and State levels in the  
Departments of Public Welfare. This does not provide for medical  
leadership in this major medical and health program. There is still  
hope that leadership in the provision of publicly supported medical  
and health services can be regained or retained by those qualified by  
training to lead in the medical and health fields. Let us plead to all  
our legislative and appropriating bodies to support the health agen-  
cies—Federal, State, and local, as the best prepared and most logical  
vehicles for doing health work."

The State Board of Health is succinctly described as "the overall  
planning and coordinating body in the field of health in Florida."  
That there are problems is frankly acknowledged. Attention is called  
to the Federal tendencies "aimed at more centralized direction and  
controls, including planning, financing, and operations." The trend  
toward "dispersal and fragmentation of health activities in almost  
every conceivable way" is deplored as is the readiness of the Federal  
Government to deal directly with local agencies, choosing "any  
official or unofficial agency, health or otherwise, to act as agents of  
the Federal Government for the furnishing of health services. Chaotic  
conditions will be brought about by involving a multiplicity of  
agencies at all levels, which cannot, even with the best intentions  
and goodwill, harmonize and act together with their fragmented  
program increments.

"The role of the Federal Government as a major collector and  
dispenser of funds is well established and only the degree and method  
of its influence over the health programs are being debated." The  
great disadvantage of project grants, instead of general support is  
indicated by the strong statement: "Sound planning and stable

operations are impossible under a system of Federal grants where the amount of funds, if any, and the continuity of the funds are unpredictable and where there is no consideration of overall need and not even a consistent pattern as to what agency is likely to get the money."

The reactions of local health departments are viewed objectively by the State Health Officer. They feel "grown up," no longer need outside direction, and have "impatience and even exasperation at what they view as unnecessary controls, but they do acknowledge the need for State and Federal financial support."

Despite the acknowledged problems in Federal-State and State-local relations, there is still the conclusion that "There is no reasonable substitute yet in sight for the traditional relationship of Federal health agencies to State health agencies, and of these to the local ones in turn. Our basic framework is well designed for any work which we need to do in the foreseeable future."

Dr. Sowder gives very practical advice on planning. Here are samples: "Plan the possible, count the cost, and aim to finish what you undertake. Do not limit your objective to anything less than the advancement by all available means of the physical, mental, and emotional health of all the people whom you serve. Study your problems diligently, plan your objectives as wisely as you can. When you have decided where you can go and the best way to get there, go with enthusiasm." "Every plan should provide for an alternate route in case an unexpected roadblock is encountered. A wise old Roman (Plautus) used a mouse to give advice about planning—'Consider the mouse how sagacious an animal it is which never entrusts its life to one hole only.' " Quoting Charles F. Kettering, there is this summary: "We should all be concerned with the future because we will have to spend the rest of our lives there."

The history of this era, then, is the record of growth of the present expanded program of public health in Florida under the leadership of Dr. Sowder. During the war years there was little opportunity to procure other than temporary personnel. With its termination, and with his appointment as State Health Officer, Dr. Sowder gave immediate attention to the procurement of personnel. Within a short period, the small senior staff was supplemented by directors for Personnel, Tuberculosis Control, Laboratories, Finance and Accounts, Industrial Hygiene, and Nutrition Studies. At the next meeting of the Legislature, Governor Millard Caldwell vigorously pressed for additional funds to expand existing health programs and to add new ones. The Legislature doubled the State appropriation for public health. This was the beginning of this period of progressive development. A full historical record would involve a detailed description of the evolution of current programs. Here the

picture will be sketched only in broad outline, chiefly to call attention to major changes in public health in Florida.

With increasingly effective control of acute communicable diseases, including malaria, the relative emphasis on control of acute infectious diseases was reduced. The major press for malaria control was so effective, that in 1950 it could be stated unequivocally that this disease, so recently a major scourge, had been eradicated. Yellow fever and dengue seemed only of historical interest. But the insect hosts remained and with them there was the ever-present hazard of reintroduction and spread. So, for these diseases, massive control programs gave way to alert surveillance. Through Federal funds a vigorous campaign to eradicate the *Aedes aegypti* mosquito, transmitter of yellow fever and dengue, is now being carried on. This has been done already in many neighboring countries to the south. The flea-bore endemic typhus disappeared also, and with it programs designed specifically for its control.

In this period among the acute infections spread from man to man, an earlier scourge, smallpox, was a potential risk only. Control of diphtheria, pertussis, tetanus, and typhoid, for which specific preventive measures are available, has transferred them from common diseases to relative rarities. Most of the short history of poliomyelitis in Florida was in this era. Prior to the forties, polio did not commonly occur in the South, but there followed disturbing epidemics, the worst in 1955. Then polio vaccine became available, first Salk and then oral. Florida had an active role in the early tests of the efficacy of each of these vaccines. Evidence indicates that this dread disease can be eradicated, and this goal is nearing attainment. So, for these several diseases concern has changed from epidemics to a quiet persistent pressure to maintain safe immunization levels.

Within this brief historical span of less than two decades, the tuberculosis picture has changed rapidly. To the one hospital near Orlando, opened in 1938, three others were added and fully used for a time. Then, despite the growing population, the number of new cases decreased and one hospital was transferred to other use. Persuasion was required to prevent a too-precipitous closing of another. The period began with procurement of multiple mobile radiological units and a vigorous program seeking periodic chest X-rays on all adults. At first this resulted in finding many new cases; subsequently, this method became less productive. Attention was then directed more specifically to high-risk groups. Culturing of the causative agent of tuberculosis was started in the Board's laboratory; this supplemented the previous microscopic search for organisms and proved to be a much more sensitive test. Cultures soon revealed differences in the acid-fast bacilli found in suspected cases of tuberculosis and led to initiation of an ongoing study of cases yielding tuberculosis-like organisms which carry the present designation of "Unclassified



Mycobacteria." Thus in tuberculosis there was a changing picture, and one with substantial scientific interest and importance. Much remains to be done.

Rabies is an old problem but a changing one also. Heretofore, attention was directed almost exclusively to the "mad dog" as a source of danger. However in this period, wild animals, notably the fox, raccoon, and skunk were found to be important viral reservoirs. Of even greater interest, rabies was found in bats, the initial identification in the United States being made in the Tampa Laboratory. Also, through evaluation studies in the State Board of Health laboratories, a more rapid and effective diagnostic test for rabies is now commonly used. Another changing and interesting program and a continuing one!

Though many infectious disease problems declined, a new one, encephalitis, made its appearance and is of deep concern in the sixties. Viral encephalitis is a mosquito-borne disease transmitted chiefly from birds. This is the known cause of "blind staggers" in horses. In the early fifties, recognized cases of this infection in humans were sporadic and rare. But since 1959 three epidemics, two small and one substantial, occurred due to St. Louis encephalitis. All of these outbreaks were in the Tampa Bay area. They presented a hazard to Florida's commerce, particularly its tourist industry, as well as to the health of its citizens. The broad importance of this infection to public health, to Florida's economy, and to scientific knowledge, led to initiation of a special research and surveillance program. Florida's Encephalitis Research Center was established in the fall of 1962 in space made available by the Southwest Tuberculosis Hospital in Tampa. Support was obtained through a National Institutes of Health research grant and a special State appropriation. This active program is little more than well on its way.

Since 1944, venereal diseases have had a hopeful decline and a disturbing increase. For a time it seemed that penicillin was the answer; syphilis in its primary stage was rarely seen. Appropriations and control activities were reduced. Then incidence began to climb. Now venereal disease control is an ongoing program with a substantial field staff, epidemiologically tracing sources and exposures and assuring that infected persons and suspects are under appropriate medical and public health care, and educating selected groups such as school teachers.

During World War II and in the lean years preceding, a limited laboratory staff provided an increasing volume of services. But there was urgent need for expansion of staff and facilities. A postwar training program drew into the State laboratories a quota of recent graduates of Florida colleges and universities. A majority have stayed and advanced in education, experience, and responsibility. Currently they fill a majority of the senior laboratory positions. This program

has aided greatly but recruitment and training of staff is a never ending task.

Laboratory quarters and equipment, the working tools of a laboratory staff, were outdated and inadequate by 1945. One by one new buildings or quarters with modern equipment have been obtained. At the time of writing, plans for new laboratories in Tampa and Pensacola have been drawn. In little more than a year, new quarters and facilities for all laboratories will be completed. But this will not be the end. Already the Miami laboratory has far outgrown its "new" quarters and needs elsewhere are becoming very evident.

Two new regional laboratories in Orlando and Lantana (Palm Beach County) have been added to those in Tampa, Miami, Tallahassee, and Pensacola. By joint agreement with the State Tuberculosis Board, the laboratories in Lantana and Tallahassee are housed in tuberculosis hospitals and serve the clinical laboratory needs of the hospital as well as public health laboratory needs of the region. Senior personnel from the State Board of Health laboratories act as consultants to the laboratory of the Southwest Tuberculosis Hospital at Tampa. They also served the Orlando Hospital laboratory when it was open. This cooperative plan has proved to be economical, efficient, and pleasant.

There have been many technical advances in these two decades. One entirely new activity has been added, the radiological laboratory located in Orlando. This laboratory provides services to the State's new radiological health programs. A comparable addition to aid in the study and control of pesticides in the environment is an obvious need which has not been completely satisfied.

The demands on the Bureau of Vital Statistics have grown with population, with increasing calls by other bureaus and divisions for statistical services, and with an increasing load created by legislative requirements in vital statistics. The Bureau is now housed in new quarters, already crowded with work divided among the Divisions of Vital Records, Public Health Statistics, and Data Processing. A computer is a recent addition and promises new possibilities in this basic field of public health.

Responsibilities in sanitary engineering have expanded, not only with the multiplication of population, but even more so with the recent growth of industry. The Bureau of Sanitary Engineering has held firmly to its requirements for safe water and sewerage systems for the innumerable subdivisions and housing developments. There have been loud objections by builders who were chiefly concerned with profits, but there is quiet but deep appreciation for this protection by Floridians everywhere. Massive programs for the building of sanitary facilities have been required by expanding metropolitan areas. The Bureau, with responsibility for approval of plans, has fostered long-term efficiency and economy in these public works. Control

on quality of waters in areas used for harvesting of shellfish continues to be demanding and troublesome. But newer and even more baffling has been the prevention of pollution of water and air, predominantly by expanding chemical industries. The responsibilities of the director of the Bureau are now shared by an assistant director and four division directors.

With the postwar growth of population and with industrial expansion, it became evident that engineering service to all areas of the State would best be provided by permanent assignment of engineering personnel to regional or district areas. The initial step was the assignment of one engineer to each of two public health district offices, then in Vero Beach and Arcadia. From that beginning the regional engineering activity developed until today there are six field offices. The 1957 Legislature authorized establishment of "a stream sanitation control and research facility . . . to serve central Florida" and in 1962 the environmental control laboratory and office was finally constructed at Winter Haven. Whereas in 1957 water pollution control was the major problem, by 1962 air pollution control in Polk County had become of high importance, and consequently the new facility housed a staff working in both water and air programs. With regional offices and the Winter Haven facility, approximately half of the engineering staff has their headquarters outside of Jacksonville. These offices have provided more immediate support of an engineering nature to county health departments, as well as to the general public.

The Bureau of Entomology which, in its beginning, was a Division of the Bureau of Sanitary Engineering, became an independent Bureau in 1953. Since then there have been major developments. State aid to mosquito control districts was first authorized in 1949. With vigorous citizen support resulting in substantial local appropriations, work primarily for control of pest mosquitoes has grown progressively. The importance of this Bureau in encephalitis control was clearly manifest in the immediate availability of resources and "know how" for control programs in the areas affected by the 1962 epidemic.

Another notable recent development in the Bureau of Entomology was the planning, authorization, and development of the Entomological Research Center in Vero Beach. Although in operation but one decade, the Center has rapidly won national and international recognition. Its budget from State funds has been supplemented by substantial research grants chiefly from the National Institutes of Health. The purpose of this research center is to acquire basic knowledge required for effective insect control and to translate this knowledge into practical operating programs. This Bureau was assigned responsibility for the administration of the Structural Pest Control Law passed in 1947.

The Bureau of Maternal and Child Health continues to sponsor and guide work in its fields as carried out by local health departments. In the interval under consideration there have been distinctive additions to its programs. To aid further in improving the care of premature infants, a Premature Demonstration Center was established at Jackson Memorial Hospital, Miami. The Center provides care for premature infants of that area, and since 1958 has served as a training, demonstration, and study center. Somewhat later a Developmental Evaluation Center was organized in Dade County as a public health approach to problems of the mentally handicapped. There has been intensive study of a limited number of patients with long-term followup. After five year's work, it is apparent that this Center has acquired the experience and knowledge to guide the development of community programs for these handicapped children. Through consultation and education, public health nurses, social workers, and others in Florida are being oriented to the problem. Furthermore, using the truly preventive approach, programs designed for the early detection of cases of phenylketonuria (PKU) were promoted and the special diets required were made available to families unable to purchase the costly prepared foods. Quite recently there has been a special endeavor to provide more effective medical and health care for mothers and children in families of migrant agricultural laborers. These special maternal and child health programs were supported in large part, or entirely, by funds provided by the Children's Bureau, U. S. Department of Health, Education and Welfare.

Statements concerning individual programs are relatively unusual in Dr. Sowder's writings. He does speak with feeling concerning problems of the aging and on mental health. "The lot of the aged is a sad one. We know enough to be doing more than we are. Our generation is deeply in debt to the one that just preceded us. We have the means and we have the obligation to pay this debt by doing all that is within our power to restore the dignity and serenity to the declining years of our older citizens." Public health programs for the aging are admittedly in a developmental phase.

As to mental health, Dr. Sowder declares, "It is my humble opinion that the mental illnesses and disorders are public health problems and that we should attack them promptly with what we have available. We need to know more, but we know enough now to make a tremendous contribution. Much can be done in the schools in the prevention of mental and emotional disorders. I believe that one of the most important objectives of the school health program is the development of well-adjusted, emotionally stable children."

Florida's community mental health program was initiated within the Bureau of Maternal and Child Health. This soon became an independent Bureau and one of the most rapidly growing. The begin-

ning was in 1947 with designation of the State Board of Health as Florida's Mental Health Authority. As such, it received funds under the Federal Mental Health Act. In 1953, State funds in the amount of \$150,000 for the biennium were appropriated. Six years later, however, this had increased to over one million dollars, expressing concern of legislators and their determination to move effectively in this field.

The Bureau of Dental Health also contributed to the health of children, and to a lesser degree of adults. In 1936, this Bureau began with a program emphasizing dental health education. Dental examinations and service to children of indigent families were included. But in this later era, there were two developments of outstanding importance. Fluoridation of public water supplies was started in a quiet and small way in 1949, with no expectation that it would become the focus of a wide public controversy. Despite this, the Bureau has pressed persistently forward. Currently, some 1,000,000 users of public water supplies have an intake of flourides adequate to insure development of teeth quite highly resistant to dental caries. Flourides are present naturally in water used by about 300,000 of these; for 700,000, flourides are added up to the desired optimum. Precise control of this level is another responsibility of the Bureau of Sanitary Engineering.

The procurement of dentists for the dental health program had been an obstacle from its beginning. This situation was resolved in 1957. In that year, The Florida Dental Preceptorship Plan was initiated. Under this plan, recent graduates in dentistry serve under the guidance of local practicing dentists. The preceptors are permitted to continue in this status for one year without a license, or longer with special authorization. This opportunity for experience under senior guidance, together with a reasonable salary and no license required, has made it possible to fill preceptorship positions. Young, well-trained, and eager dentists have become available for work and service in local health departments. This plan has been an aid to recruitment for careers in public health dentistry.

The control of narcotics and the enforcement of medical registration and pharmacy laws continued with change in intensity rather than direction. Radiological health and industrial health activities have evolved slowly within this era with relatively active growth of radiological health in more recent years. As a service activity, the Bureau of Finance and Accounts grew with the growth of other programs. This Bureau and the Division of Personnel had to be expanded further to satisfy the State's demand for increasingly rigid controls on funds and personnel. Health education became an essential part of an increasing number of programs with leadership by health educators in large counties.

The Bureau of Special Health Services includes organized ac-



tivities all of which have become substantial programs in public health since 1945. First, there was the work with chronic diseases, diabetes, cancer, heart disease, and most recently, glaucoma. Service in these diseases has been predominantly casefinding, consultative diagnostic examinations, education of the public and of the health professions, and encouragement of rehabilitative measures. Notable in these programs is the interrelationship of the work of official and voluntary health agencies. Considering the magnitude of needs including that of primary prevention, it is recognized that this is but the earliest beginning of the role of public health in chronic disease control.

A disastrous fire in a nursing home directed attention to the State's responsibility for institutions caring for the sick and aged. Laws and regulations relating to licensure of homes for the aged, nursing homes, and hospitals have been formulated and adopted. Within the past decade this licensure has become recognized as an essential public service. Active programs of education, particularly for operators of nursing homes and homes for the aged, have been developed. Gradually, the least desirable and the unsafe homes and hospitals have closed their doors and slowly the quality of other institutions has been improved.

Of recent vintage also is the administration of programs for the hospitalization of the indigent and medically indigent. Here the State Board of Health participates in programs funded through the State Department of Public Welfare. There were problems in the evolution of these cooperative programs. These also appear to be programs in their early infancy.

That research has a proper and essential role in public health was officially acknowledged by the State Board of Health by its establishment of a Bureau of Research in mid-1964. This carries on the work of the Coordinator of Research, Dr. Albert V. Hardy, who was designated head of the new Bureau. Highest priority has been given to aiding in the development and coordination of the multifaceted studies of viral encephalitis.

From the time Federal funds became available under Social Security, the development of local health services was considered to have highest priority. The first objective was to make services of public health units available to all. With organization of the St. Johns County Health Department in 1960 all 67 counties had full-time health units. But there was the continuing need to increase the efficiency and productivity of these local units. This is the main objective of the Bureau of Local Health Services, with its Divisions of Public Health Nursing, Sanitation, and Nutrition. The Bureau also guides the accident prevention and health mobilization programs. A more detailed account of the development of public health at the local level is included elsewhere.



*The headquarters of the State Board of Health has grown from the small compact building constructed in 1912 (below) to the complex above. An addition to the first building shows at top right, and the Hanson and Porter Buildings are shown left. Expanding programs demand still more space as several bureaus and divisions are now housed in rented quarters in other parts of Jacksonville.*



There were new and urgent demands on the State Board of Health in this "changing Florida" with its exploding population and its new or expanding cities and industries. There was mounting concern for providing adequately for hospitalization of the indigent, for licensure of nursing homes, and for protection of Florida's citizens and guests from pest and disease-carrying mosquitoes. There was the need, the demand, and the provision for expansion. The magnitude of the change in public health in this period of less than two decades is indicated further by the increase in budgets. In 1945 the total disbursements by the Board of Health was just over \$3,000,000; in 1963 they were nearly \$25,000,000.

Lastly, the record of this period would be incomplete without mention of buildings. In Jacksonville the adjoining Henry Hanson Laboratory and the J. Y. Porter Administration buildings were constructed in 1955 and 1958 and jointly dedicated on February 10, 1959. However, the need for space has never been satisfied. Currently, five bureaus and one additional division are housed in rented quarters.

It is in the counties, however, where construction of modern health department buildings have markedly changed the status of public health. Aided substantially through Hill-Burton funds, headquarters units and auxiliary centers have been authorized by County Commissioners. These attractive buildings indicate clearly that in the fifties and early sixties, public health service at the local level has come to stay.

## CHAPTER VIII

# COUNTY HEALTH UNITS

CONCERN with the development of appropriate health services by and in the counties has a history extending back as far as the Florida State Board of Health. The State Constitution adopted in 1885 provided for a State Board of Health and authorized establishment of county boards of health. Legislation formally establishing the State Board of Health in 1889 was followed by enactment of laws permitting organization of county boards of health. The need and benefit of the former has never been questioned, but following closely upon their establishment, doubts were raised as to the benefit of county boards of health as then operated. The State Board of Health had broad supervision over all public health matters and gave early attention to quarantine. But quarantine was the interest of the counties also. Each county adopted its own regulations for the control of epidemic diseases, particularly yellow fever. Differing county rules were enforced by persons with deep fears but shallow knowledge. There was special emphasis on the exclusion of travelers and goods from suspect areas. In the face of an existing, or rumored, epidemic written permission could be, and frequently was, required for persons or merchandise to cross county lines. It was soon evident that this division of authority between State and county health departments was a mistake. The State Health Officer recommended, and the Legislature approved, the abolition of county boards of health as then established.

Despite the early problems with the county boards of health, it appeared evident to Dr. Porter, Florida's first State Health Officer, that a public health representative in each county was needed. Selected practicing physicians were designated as "County Agents." Their reports indicated concern chiefly with epidemic diseases, such as smallpox and other acute communicable diseases. Annual reports were called for by the State Health Officer, but they give the impression that efforts frequently may have been limited to this end-of-the-year chore. However, these reports were a part of Dr. Porter's procedure for morbidity reporting. As such the procedure was valuable but it was not the foundation for the building of county health units. There is no indication these county agents were used after the termination of Dr. Porter's tenure.

For a prolonged period local public health services were provided

predominantly by persons employed directly by the State Board of Health. At first Dr. Hiram Byrd was the only assistant to Dr. Porter, initially part-time and for many years full-time. Later, as many as eight District Health Officers were employed. Occasionally district public health nurses and sanitary officers were also appointed. Cities were free to establish their own health departments and Jacksonville's is as old as the State Board of Health.

For a better understanding of the history of development of county health units, one must look to the Rockefeller Foundation and early public health efforts for the control of hookworm disease. Through his associates, John D. Rockefeller, Sr., acquired an earnest concern for the social, economic, and health conditions in the rural South. Dr. Charles W. Stiles vividly described the ravages of hookworm. Dr. Simon Flexner spent a year studying the problem and concluded that something practical could be done. Through the influence of these medical leaders, the Rockefeller Sanitary Commission was formed in 1909, with a southern educator from Tennessee, Dr. Wycliffe Rose, at its head. In 1913 Dr. John A. Ferrell became the operating director of this commission. In the years following he was the nation's leader in the development of county health units.

The Rockefeller Sanitary Commission carried on extensive work in half of the counties in 11 southern states. (Florida had its own program and was not included.) Its workers went from county to county, diagnosing and treating hookworm victims, stimulating sanitary improvements, and teaching physicians and the public. It soon became clearly evident that there was need for continuing, not itinerant, public health units. Ten county health units were developed in North Carolina, with financial aid from the International Health Board of the Rockefeller Foundation. Meeting an obvious need, county health units spread rapidly in the Southern States—except Florida—and in Ohio and Michigan. By 1920 about 150 county health units had been organized and by 1930, over 500, predominantly in the Southern States. The role of the Rockefeller Foundation was to demonstrate what could be done under favorable conditions and to begin training public health professionals both in the field and in the newly established school of public health. (Johns Hopkins University, the first, opened in 1918.)

But what was the impact of these activities on public health in Florida? The years 1917-1932 were the period of "retarded development" of public health in this State. Even so, there was interest in county health units by key individuals. A Bureau of Communicable Disease and Health Units was established in 1921, with Dr. George Dame as director. He had already had four years service as a District Health Officer. In consultation with Dr. Ferrell, it was agreed that Dr. Dame, in association with a staff physician from the International Health Board, would visit county health units in



several states and thereafter evolve a plan for Florida. A detailed report was presented to the State Board of Health and adopted. The report outlined the organization and program of a unit, staffing requirements, and a plan for cooperative support. Even though, since that time, there have been long experiences in public health and great advances in the medical sciences, the plan as then conceived is the basic program of operation of county health units now in effect. The report indicated that the minimum personnel would be a physician-health officer giving full-time to his duties, a nurse, a "sanitary inspector," and an office assistant. This staff and miscellaneous expenses could be provided by a basic budget of \$10,000. Of this amount the county would contribute at least half. The health units would be component parts of the State's public health organization, with directing authority vested in the State Health Officer and with operating control in the hands of the director of the Bureau of County Health Units. This plan was evolved on the basis of knowledge of the strengths and weaknesses of public health programs in other states. It could benefit from the former and avoid the latter.

The early twenties were lean years for public health in Florida. Despite this, vigorous efforts were made to establish some county health units, as a beginning, in Palm Beach and Polk Counties. It was in 1921 that a State administration had been elected on a promise to reduce State millage. The Legislature did so by one-quarter mill—all from the State Board of Health. This was not the real intention of the legislators but resulted from some political chicanery developed to divert public health officials from pressing for measures they wished enacted. It was several legislative sessions later before the lost funds were restored.

So, for lack of funds, plans for establishment of county health units were temporarily abandoned. Dr. Dame left the Board of Health in 1922 to reenter private practice. He returned in 1941, after an interval of 19 years, which included one term as senator in the State Legislature. In 1944 he was again director of the Bureau of County Health Units, then renamed the Bureau of Local Health Service. His early plans and dreams had become a practical possibility.

Taylor County, after experiencing the effects of programs for the control of malaria and hookworm disease, was the first to organize a county health unit. It began to function on September 1, 1930. The Leon County Health Unit was organized as of January 1, 1931, followed 14 months later by Escambia County. These latter two units have continued without interruption. Taylor County found that dollars were very scarce during the depression and for three years, 1933-35, the county health unit was out of business. Since 1935 its service has continued without a break.

In 1931 there had been important legislative action. This was passage of the County Health Unit Enabling Act. The Act wrote into law most of the recommendations offered by Dr. Dame and approved by the Board 10 years earlier. Records of the State Board of Health fail to indicate the person or persons who aided in the drafting of this law, although it was during Dr. Hanson's administration. Using the benefit of accumulated experience, advisors designed a bill acceptable to legislators which has proven so satisfactory it has not been amended to date. This enabling act had particular importance in making it possible for two or more counties to form one unit, thus bringing within reach of small counties the services of health officers giving full time to public health. The nature of State-local cooperation was indicated and procedures for handling funds were specified. Through this law, an administrative skeleton was provided; it needed matching funds to give it flesh and the breath of life. Fiscal resources came in substantial amounts under the Social Security legislation of 1935. There followed, beginning in 1939, the provision of State funds to aid county health units. This was the period of stimulated growth of public health in Florida, and the most notable development was that of the county health units.

The rapidity with which the counties joined in this program is shown in Figure 1. Prior to enactment of the Social Security law, two counties had health units in operation. From late 1935 through 1941 a total of 32 counties was organized and the Taylor County Health Unit was reactivated. Progress was slower during the war years but a total of 19 county health units were added during 1946 and 1947. At the end of this time all but seven of Florida's 67 counties had organized health units. Except for St. Johns County (which joined in 1960), all had initiated this service by 1952.

The establishment of county health units involved salesmanship. Predominantly County Commissioners had to be convinced. Each county has its own history of how this was accomplished. To some, the needs and benefits of local health units were clearly evident, and the only problem was finding additional tax money. In others, person-to-person "selling" of commissioners was effective. Frequently commissioners had to know that the influential public demanded this service. At times there was the need to mobilize the enthusiastic support of local groups and here the PTA, the Federation of Women's Clubs, and other women's organizations were strong supporters. At other times unusual obstacles had to be overcome. A vocal and influential physician might condemn the project as "state medicine." A part-time health officer or county physician might see a loss of status or income; such situations, when present, had to be resolved. There was also need to obtain concurrence of cooperating bodies. Cities with health departments were encouraged to pool their expenditures for public health with the county. School boards em-

playing nurses had to be convinced that their students' needs could be met better by an organized unit than by a nurse working alone. Not infrequently it was a voluntary health agency which "tipped the scale" through persuasion or participation. Salesmanship was required and there were effective salesmen in the State.

The consolidation of city and county health departments was a crowning achievement. It was not easy to obtain but slowly and finally all but one city health department came into the state-wide plan. This effort with economical overtones is etched on Florida's image whenever its county health unit program is mentioned. No other state equals it.

The establishment of county health units is but the beginning of the story. There has been progressive expansion. One measure of this is the increasing budgets for county health work. The change in these short decades is indicated in Table 1. Additional funds for work in county health units had been provided. Aid for venereal disease control came through assigned personnel. In the 1964 budget the salaries of 50 nurses to aid in the provision of home nursing care in the counties have been paid through Federal funds disbursed through the Bureau of Special Health Services. Laboratory work, much of the sanitary engineering service, consultative service, accredited training stipends, and biologicals are all made available to the counties and these are supported through State-level funds. The cost of hospitalization of the indigent, and for outpatient medical care for Cubans in Miami has become a large item, and the county units are intimately involved in the local administration of these programs. Currently the combined Federal, State, and local funds for hospitalization and medical care, administered with the cooperation of the county health departments, approximate the total for all other services covered in their official budgets. Thus the resources available to these units substantially exceed the amounts shown in Table 1.

Local funds have come predominantly through county commissioners, city administrators, and school boards with some supplementation from voluntary agencies and other sources. In more recent years the increases in local funds have been supplied almost entirely through County Commissioners.

Throughout the years Federal funds have included a substantial amount for maternal and child health. An increase in these funds accounts for a part of the expansion in the Federal allocation in 1965. However, most of the additional funds from this source were for new services in chronic diseases and for the health care of the aged.

There is no record of the number of persons employed in county health units in the very early years, but the growth of staffs from 1945 onward is indicated in Table 2.

Public health is service to people, including control of health hazards in the environment. Inevitably, public health services must

*Table 1*  
Expenditures for County Health Units, by Source of Funds and Year

SOURCE OF FUNDS	YEAR					
	1935	1940	1945	1950	1955	1960
Local	\$ 24,383	\$ 132,907	\$ 629,941	\$ 1,544,017	\$ 2,870,987	\$ 5,263,682
State	3,816	66,796	185,262	723,710	1,159,785	2,089,214
Federal	2,771	97,590	132,824	183,626	196,359	254,789
Total	\$ 30,970	\$ 297,293	\$ 948,027	\$ 2,451,353	\$ 4,227,131	\$ 7,607,685
* Budgeted or estimated						\$ 11,325,069

\* Budgeted or estimated

Table 2

## Full-Time Personnel in County Health Units, by Year

CLASSIFICATION	YEAR				
	1945	1950	1955	1960	1965*
Physicians	26	49	53	76	83
Nurses	166	282	364	522	721
Sanitarians	99	156	189	290	360
Sanitary Engineers	—	8	7	15	16
Clerical	104	159	203	322	418
Other	34	101	126	309	295
Total	429	755	942	1,534	1,813

\* Positions budgeted at beginning of year

be given at the local level. Hence the description of the work of county health units would be a description of Florida's public health program. Operating authority for some work reaching into the counties, it is true, may not rest in the unit. For public water supply and sewage disposal facilities, the Bureau of Sanitary Engineering carries responsibility. Vital records are collected by county health departments. Copies are retained by the county and the original records are forwarded to the Bureau of Vital Statistics for preservation. The complex problem of narcotics control is handled by a special staff. In the main, however, the major functions of State bureaus and divisions is to work with the county units. These State-local co-operative activities are the main body of Florida's public health program. A few distinctive features of county health units warrant further comment.

One notable development is the growth of a profession whose members are found almost exclusively in local health units, namely, the sanitarians. For the improvement of rural sanitation, inspectors were required. Likewise, in the malaria control program, intelligent, informed male workers were essential. To meet these and related needs in environmental sanitation, a new type of public health worker was required. This body of workers has grown in numbers, in training, and in stature. Today professional sanitarians are college graduates with training in the biological sciences whose senior members have completed graduate study in public health. In two decades they have increased in number from 99 to 360. It is their responsibility to handle those problems in environmental sanitation which do not require the immediate use of medical or engineering skills. They respond to many urgent calls from citizens. It may be a "mad dog," a



malfunctioning septic tank, a food-borne outbreak, or even some condition which may have minor public health significance though of major concern to the citizens involved. The able sanitarian is a community leader and a very essential member of the public health team.

Public health nurses, though members of an old profession, are now public health specialists. They too have grown in training, in stature, and in numbers. From one-third to one-half of the staffs of county health units are nurses. The growth of public health nursing is described separately.

From its earliest development and in the smallest units it was recognized that a clerical worker was essential. In addition to her work as clerk, stenographer, and secretary, she functioned as receptionist, information officer, public relations "expert," and business manager. These duties in larger departments were soon assigned to several persons. Business managers, for example, have become increasingly common and the importance of their work is recognized by their acceptance as one of the senior staff members. All acknowledge that a county health department cannot function efficiently without an able clerk or in larger departments without a strong clerical, fiscal, and administrative staff.

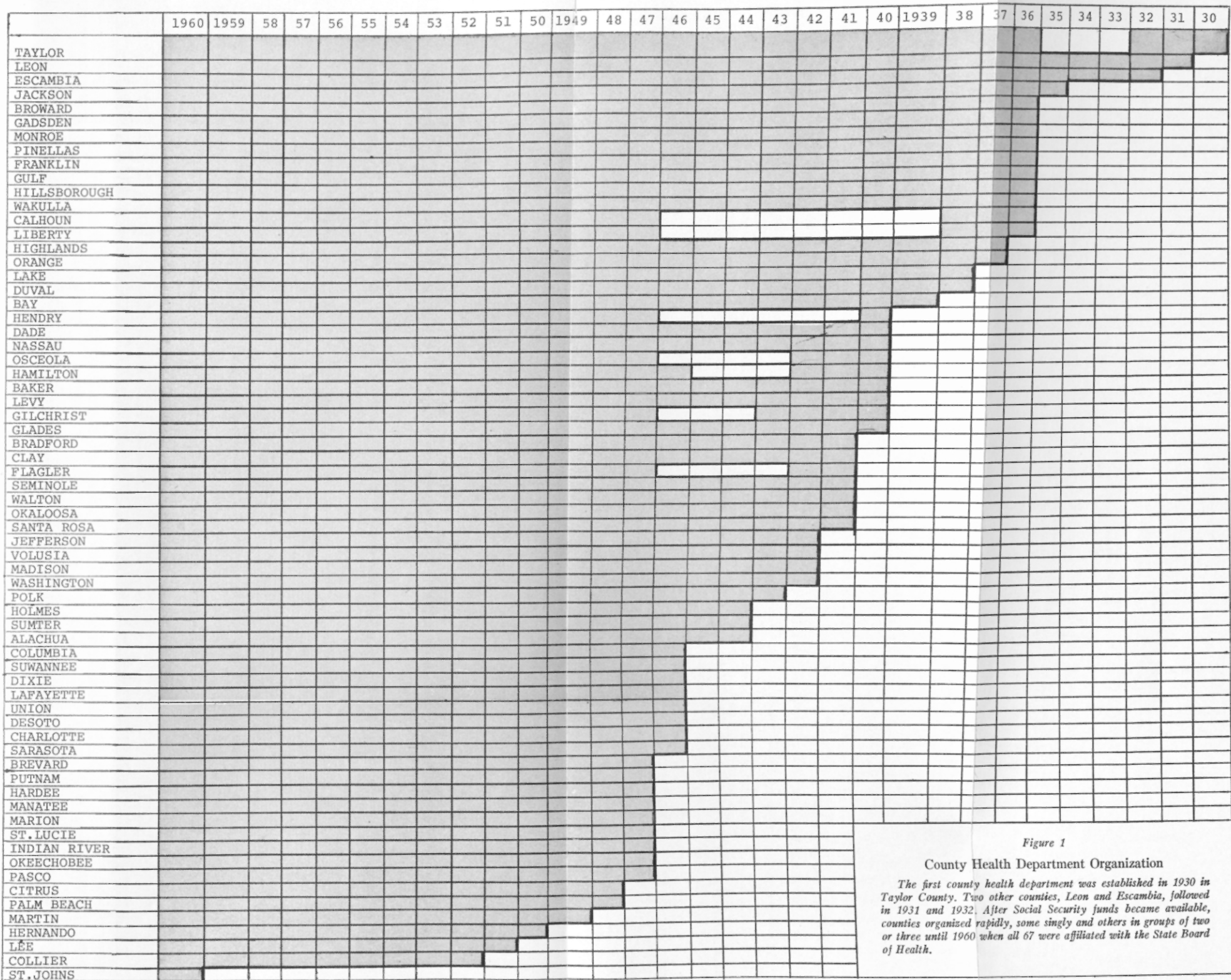
The mental health worker is a recent addition to the staff of local health units—and is a product of Florida's public health program. These workers reflect the new concern for total health, mental as well as physical. As educators, advisors, coordinators, and field workers they have demonstrated the need for persons in local units free to give fulltime to problems in mental health.

In larger county health departments, the health educator is an established and important member of the team.

The role of the health officer is evolving also. He is no longer concerned predominantly with clinics, the examination of school children, and "shots." To an increasing degree, he is a medical administrator. One of the recently added duties of county health units is handling local problems in hospitalization of the indigent. The follow-up of patients discharged from tuberculosis and mental hospitals is of longer standing. Home nursing care is a part of, or related to, public health nursing, and homemaker services are around the corner. All of this indicates that the health unit is being more and more closely related to medical care and in the future the director may well have a key administrative role in assuring the availability of comprehensive preventive, therapeutic, and rehabilitative services. Public health then will have come of age as an important medical specialty.

For an assessment of Florida's county health units to date, we listen to Dr. Sowder speak to the Florida Public Health Association in 1964.

"In 1931 a new era began in Florida. The county health unit law



was passed which authorized a joint effort by local and State authorities through the State Board of Health; and more important still, it provided for a consolidation at the local level of all health programs by cities, the counties, the schools, and even by voluntary health and private agencies. There was provision for the joining together of several counties where these were too small to operate alone. Not only this, it made possible also the use of all types of State aid and State funds, as well as Federal aid and Federal funds at the local level. To anyone who may be unfamiliar with this Florida plan, this will sound like an utopian arrangement—but how has it worked? Partisan as I may be, I can hardly see how anyone could answer this question in any way except—very, very well! These health departments furnish community health services in possibly the widest variety and broadest spectrum to be found in the entire

Florida's First Three County Health Officers  
and  
Those Who Have Served More Than Ten Years

<i>Health Officer</i>	<i>Dates Served</i>	<i>County(ies) Where Employed All or a Major Portion of the Time</i>
1. W. H. Y. Smith	1930-33	Taylor
2. L. J. Graves	1931-44	Leon
3. W. A. McPhaul	1932-36	Escambia
4. Leland H. Dame	1933-54	Seminole, Orange
5. Frank V. Chappell	1935-41; 45-60*	Hillsborough
6. Jame B. Parramore	1936-43; 45-49	Monroe
7. Thomas E. Morgan	1936-39; 47-	Pinellas, Duval
8. C. A. O'Quinn	1936-46*	Madison, Taylor
9. Terry Bird	1938-	Calhoun, Jackson, Seminole
10. T. E. Cato	1940-	Dade
11. Robert D. Higgins	1942-57	Volusia
12. Frank M. Hall	1943-55*	Alachua
13. John W. McClane	1945-56*	Nassau, Baker
14. A. Y. Covington	1946-	Bradford, Clay, Union
15. J. Basil Hall	1946-	Lake
16. Paul W. Hughes	1946-	Broward
17. J. C. McSween	1946-64	Escambia
18. W. L. Wright	1946-63	Sarasota
19. Joseph C. Weeks	1946-57*	Columbia, Hamilton, Gilchrist
20. J. M. Bistowich	1947-64	Leon
21. C. L. Brumback	1950-	Palm Beach
22. C. L. Nayfield	1950-	Polk
23. A. F. Ullman	1951-	Bay
24. John S. Neill	1951-	Manatee, Hillsborough
25. E. G. Byrne	1952-	Alachua
26. H. F. Bonifield	1952-	Citrus, Hernando, Levy
27. Henry I. Langston	1952-61; 63-	Gulf, Franklin, Wakulla, Okaloosa
28. W. C. Ballard	1953-63	Pinellas
29. Neill D. Miller	1954-	St. Lucie, Martin, Okeechobee
30. J. W. Lawrence	1954-	Lee

(\*) Died in office:

country. From the standpoint of community organization and statewide coordination, large areas of the country have nothing approaching it. In the organization of overall community health services, Florida is well ahead and is well prepared to undertake new responsibilities."

Three related policy statements of the American Public Health Association adopted in 1963 serve as guides for future public health developments. The major concern of the future will be the chronic diseases, which have emerged as the principal cause of illness, disability, and premature mortality. In recent years the scope, volume, and complexity of health services have greatly increased. There is deep concern over fragmented activities which can be carried on more effectively if coordinated. In view of these and other considerations, the development of "community health service centers" was recommended. These would draw together the health department, voluntary agencies, related social agencies, and a medical center complex. The purpose would be to coordinate curative, preventive, and restorative services for physical, mental, and dental conditions. Effective use of supporting services for comprehensive care would be better assured. The importance of initial and continuing coordinated community planning was emphasized. A new type of health team involving an increasingly intimate relationship between public health and medical practice would be required. Health departments have had the broadest responsibilities for advancing the health of the communities. The opportunity is here for even more effective leadership in coordination of community medical care in the years which lie ahead.

Thus the county health units in Florida have been soundly designed and have served well. However, a broader service and more productive future is visualized by the nation's public health leaders.



## CHAPTER IX

# PROGRESS THROUGH COOPERATION

IN ITS BEGINNING the Florida State Board of Health was a very small organization, and it alone was active in the public health field. The Florida Medical Association did urge creation of a Board of Health but records fail to indicate that the association had any working or consultative contact with the State Board of Health in the early decades of its work. No other state agency had activities or responsibilities considered to be in the health field. No voluntary health organization was active prior to 1916. The Board was supreme in its organized efforts for the prevention of communicable disease and the protection and promotion of human health.

Through the years public health has become a subject of wide concern. Professional societies, voluntary agencies, and multiple official agencies have interests and activities related to public health. To an increasing degree the State Board of Health has had the benefit of cooperation from others. Likewise, staff members in the bureaus, divisions, and local health departments more and more frequently are being requested to share in planning health programs to be sponsored jointly or by other organizations. This mobilization of public health interest and effort has been of great benefit in program development. It has brought about the sharing of the advantages and the problems of broad cooperative endeavors.

The multiple professional bodies available to provide counsel and support are of high importance. In recent years the Florida Medical Association has been influential in public health. The Florida State Dental Society has contributed substantially to the leadership of Florida's dental health program. The multiple professional workers who are a part of public health—the nurses, engineers, psychologists, and others—share in their professional associations, and derive from them substantial guidance, encouragement, aid, and at times criticism. All of this contributes to the development of sound public health programs.

The Florida Public Health Association has had a unique role since the first "Conference" was called in 1929 by Dr. Henry Hanson. Two years later, the association was formally chartered under its present name with the State Health Officer as its first



president. Through its annual meetings this association has provided education and has been the friendly meeting place for all concerned with public health in Florida. Other organizations also have been of particular interest to the State Board of Health, as for example, the Florida Council on Aging and the Florida Society of Medical Technologists. These endeavors, of substantial importance to public health, were generated and have grown in the spirit of cooperation.

The voluntary health agencies have played an increasingly important role in public health. These agencies are an American answer to unmet needs in a variety of health and welfare programs. They express the desires of most Americans to help the "have nots." Most of these agencies confine their philanthropy to one disease (tuberculosis, heart, cancer) or to a group of conditions (crippled children, the mentally retarded). Such agencies have multiplied since the beginning of the century. They cover the land, sparsely in the rural areas, thickly in the cities. Thousands of Floridians are closely associated with them and annually subsidize them with contributions. Each individual is a potential beneficiary of their efforts. These agencies are partners in the broad public health field.

The idea of voluntary health activity was conceived early in the development of public health but its rapid growth has been in the past two decades. Prior to the end of World War II only four voluntary health agencies were active in Florida. The Red Cross, a quasi-governmental organization with its program related prominently to the military forces, had its national birth in 1881, and aided in the 1888 yellow fever epidemic in Jacksonville. More typical of the voluntary health agencies is the Florida Tuberculosis and Health Association, which was organized in Florida in 1916, though it had its national birth in 1904 and initiated some activities in Florida in 1908. The American Cancer Society, one of the early voluntary health agencies, began its work in Florida about 1940. The National Foundation for Infantile Paralysis, now the National Foundation, also has been active in Florida since early in the forties. The other voluntary agencies entered the public health field in Florida as a post-World War II development. In numbers of organizations and in total funds provided by the people of Florida for their activities, the voluntary health agencies are a relatively new and potent force in public health in the State.

Programs of these agencies vary so widely that a composite description applicable to all cannot be provided. Actually, each organization seeks to maintain a distinctive activity. There are, however, some general features which can be described. Education is an activity common to all voluntary health agencies and is designed primarily to modify attitudes and establish desired habits of action. Lay education for cancer detection, for example, is designed to encourage periodic medical examinations or prompt con-

sultation for suspect conditions. The National Safety Council is best known for its persistent education, particularly with regard to safety on the highway. Professional education also is fostered by many voluntary agencies. Programs of continuing education are arranged through special conferences or seminars and through provision of guest speakers to professional societies. Fellowships are offered for graduate education in particular disciplines. To a limited degree educational programs are carried to the schools and to industrial groups. The amount and nature of their educational activities vary markedly.

The sponsorship of research is an activity common to virtually all voluntary health agencies. The provision of direct medical services is a relatively minor part of their programs. At present most voluntary health agencies are concerned with chronic noninfectious disorders; for these, few preventive procedures are known. However, the organizations giving major attention to tuberculosis and poliomyelitis have made notable contributions to prevention of these diseases. Obviously there are broad areas of common interests and concerns between the State Board of Health and the voluntary health agencies.

The nature of the cooperative relationship can be illustrated. In the early forties leadership in cancer control was in the hands of a voluntary agency. Later both State and Federal funds became available. In this problem, surgeons, pathologists, radiologists, internists, general practitioners, and workers in official and voluntary health agencies had manifest common interests. To coordinate services, planning, and promotion, a Cancer Council was established in 1951 which included representatives of official and voluntary health agencies and professional groups concerned. To a substantial degree this council has served as a "Board of Directors" for cooperative activity in all areas of cancer control. Its first objective was to make every doctor's office a cancer detection center. It gave guidance also to the organization, management, and expansion of a system of tumor clinics for Florida.

Following this example, there is a comparable Heart Council, still a young organization with limited experience. This council hopes to be an effective coordinating body for cardiovascular disease control.

The cooperative efforts of longest standing are those for tuberculosis control. A working partnership is well demonstrated in the organization of community X-ray surveys. The official agency provides the equipment and technical personnel; the voluntary agency is in charge of community planning, publicity, and providing volunteer workers; the professional bodies are prepared to handle the follow-up examinations; and the public in general gives active support. Those concerned with programs directed against tuberculosis

have multiple common meeting grounds which provide adequately for exchange of experience and for cooperative planning.

The oldest voluntary agency, the Red Cross, has participated in a new cooperative activity in the past decade—the Gray Lady services in the schools. For many years Gray Ladies have been familiar volunteers in hospitals. Now they are being seen in health rooms in many schools. Following a period of exacting training and with specific written instructions, they render first aid, and “mother” the ill or injured in the schools. In many ways they conserve the time of the teachers, the principal, and the public health nurse.

The above illustrations of cooperative action could be continued. The Society for Crippled Children and Adults is providing leadership in rehabilitation, to which official agencies only recently have given serious attention. The interest in visual screening and glaucoma detection is shared by the State Board of Health, the Council for the Blind, the Society for the Prevention of Blindness, ophthalmologists, and the Lions Clubs. The National Foundation and the official health agencies were close partners in the early study of polio vaccines. With many of these organizations there is a common concern with ongoing professional education.

Then too, there are “special interest” groups. The largest and a highly influential body is the “Parent-Teachers Association.” This group and all health agencies have great concern for the well-being of school children. There are smaller groups—parents of the mentally handicapped, diabetics, and others. With their deep concerns they are influential; they also are a very receptive audience for special health education. These special interest groups are eager to cooperate in health programs in the areas of their concern.

The service clubs are another group with individual health interests. The State Federation of Women's Clubs had an early and most active interest in the health and welfare of mothers and children. Initial public health work in this field was started on their urging and with their support. The work of the Lions in vision conservation is outstanding also. They provide a resource both for economic support and enthusiastic cooperation. These and others with their differing interests deserve an honored place in the panorama of American public health.

Cooperative activities with multiple State agencies have evolved. Those with official responsibility for the management of State hospitals and for institutional care share interests with the public health agency. The cooperative relationship of the State Tuberculosis Board (and its tuberculosis hospitals) and the State Board of Health has been particularly harmonious and effective. The public health agency has directed its attention to casefinding, planning for hospital admission, in arranging for the patient's return home, and for prolonged followup. These simply stated activities involve taking

thousands of X-rays in community surveys, hundreds of home visits by nurses, thousands of laboratory examinations, numerous contacts with private physicians caring for patients, the supervision of follow-up care, the management of tuberculosis clinics, and always education of patients' families, friends, and the general public. The hospital staffs aid in public health clinics and the public health laboratory staff aids in supervision of laboratory service in tuberculosis hospitals. Each agency is interested in and generally familiar with the work of the other. This is effective cooperation.

Relationship with the mental hospitals is somewhat similar to that with tuberculosis hospitals, though of more recent development. Personnel in the county health units are available to aid in arranging for hospital care of patients with mental illness, locally if possible, and in a State mental hospital if essential. There is also a cooperatively designed followup program. Public health nurses, after attending orientation programs in mental hospitals, are better able to aid families where psychiatric care is indicated. An Interagency Committee on Mental Health has provided for joint planning by the Florida State Board of Health, the Florida Division of Mental Health, the Sunland Training Schools, the Alcoholic Rehabilitation Program, and the Department of Psychiatry, School of Medicine, University of Florida. The responsibility for inpatient care is clearly defined. All agencies share concern for the patient in the community, both before admission and after discharge; all hope for effective preventive measures and all acknowledge the urgency of getting dependable information to the public.

There is less intimate connection with the state prisons, but the Division of Tuberculosis Control of the State Board of Health has aided effectively in the detection, treatment, and control of tuberculosis among prisoners and prison personnel.

There is and for years has been a particularly close relationship between the State Board of Health and the State Department of Education, and locally between the health units and schools. Florida's school health program evolved through cooperative planning. Physicians, nurses, and sanitarians in county health units simultaneously function as advisory or working members of the school staff. Then too, the State Board of Health has deep interest in the extent and the strengths and weaknesses of health education in the schools. For years these two agencies have been committed to a cooperative program in the health field.

Concerning universities, there are repeated contacts between public health workers and personnel in the medical schools and in schools of nursing, in departments of health education, sociology, social work, and statistics, in colleges of engineering and others. In Agricultural Extension, the work of the Home Demonstration and



County Farm Agents has a substantial health component which is of interest to those in public health.

One can point to many examples of the advancement of public health through collaborative programs. But these historical notes would be less than frank if attention was not directed to frictions and diverging purposes which from time to time have appeared. Cooperation involves mutual agreement. There have been instances when pressures have been used in an attempt to attain more rapid progress or more extensive programs. The response to these pressures has been resistance and lack of harmony, particularly where one agency was urging the need for additional services and the other was doing the work. These have been localized problems between personnel in voluntary and official agencies.

In problems of common concern there have been differing opinions between those with a major concern for the economic progress of an industry and those directing their attention to the protection of the public health. What standards must be established and how rigidly these must be observed are questions involving judgment. So, in the control of shellfish, the public health scientist recognizes dangers of epidemic disease where there is any evidence of pollution, whereas those concerned with expanding production may deem it appropriate to harvest where there is intermittent or low level pollution. In the control of toxic pesticides, the public health worker is influenced by his knowledge of the occurrence of deaths from pesticides; those dealing with agricultural economics know the great importance of pesticides for increasing production. Understandably, there can be differences of opinion as to what should be done to prevent health hazards while providing for increased production. In the inspection of eating establishments, the public health sanitarian is keenly aware of the varied circumstances which have accounted for food-borne epidemics. Representatives of the hotel and restaurant industry are sensitive to the reactions of its members. In such areas both the health of the public and the economic welfare of the industry deserve the fullest consideration. Such problems stress the importance of joint and continued cooperation.

Wide participation and concern with public health are of relatively recent origin. While there have been diverging and conflicting opinions, the dominant attitudes are harmonious sharing. The present high degree of effective cooperation is gratifying. However, health programs have often been expanded without comprehensive planning involving all agencies and groups concerned and there is little wonder that methods of operation and cooperation leave room for improvement.

The Citizens Medical Committee on Health appointed by Governor Leroy Collins in 1959 under the chairmanship of Dr. Edward R. Annis, later president of the American Medical Association, gave



attention to activities of official agencies in the health field. One recommendation was:

"While there is at State level a dispersion of responsibility for broad medical and health problems, this Committee holds strongly that at the local level there should be a consolidation of all community health programs for the protection and promotion of health, physical and mental. The county health departments should be so strengthened that local health services needed by various State agencies could be provided through sound cooperative planning and action. Consolidated activity at the local level will result in savings and in increased efficiency."

To satisfy the public health needs of an estimated 13,000,000 population within 25 years demands a readiness on everyone's part to strengthen public health programs. Progress through cooperation will warrant and undoubtedly will receive every consideration.

## CHAPTER X

# LOOKING TO THE FUTURE

IN THREE-QUARTERS of a century there have been repeated unanticipated happenings which markedly influenced the development of the State Board of Health. The Legislature in 1921 unexpectedly reduced the millage authorized for public health by 50 per cent. During the economic Depression of the thirties through relief agencies, the number of nurses available for public health and home nursing service was suddenly increased. Through Federal legislation support for programs has been turned on and off. In this land of change there is no basis for accurate prediction. But there are trends and there are aspirations. To these we turn briefly.

If there are certainties, one is that Florida's population will continue to grow. Assuming only that the rate of increase in the next three decades continues, then public health must prepare to care for a population of 7,200,000 in 1970, some 9,700,000 in 1980, and approximately 13,000,000 in 1990. Florida's growth has been phenomenal, as has that of the world. Already population control is a matter of concern to scientists; it appears to be a problem which will receive urgent public recognition in the years ahead. On the basis of the above estimated populations, the number of people living in Florida will have increased more than 30 times in a century. The continuation of such rapid growth would be inconsistent with favorable physical, mental, social, and economic health. This is a social as well as health problem. Pressures will mount during the next 25 years for society to adopt acceptable solutions which can be applied effectively.

Further urbanization of the population may be expected. Within a century Florida will have changed from an almost exclusively rural population to a predominantly urban one. Assuming a population of about 13,000,000 at the end of this era, trends suggest that public health services to some 10,000,000 will be provided by 10 county health units. The outstanding feature of public health in the years ahead will be the progressive development of all county health units. But the larger counties will acquire a diversified staff of well-qualified professionals, and such units undoubtedly will assume an increasingly influential role in public health leadership.

The disorders of major concern in the years ahead will be the chronic diseases. Now it is cancer and heart disease. There is a

beginning concern with neurological and sensory diseases. In the years ahead other conditions such as "rheumatism," a common cause of disability and distress, will receive increasing attention by operating health agencies. The importance of epidemiological studies in pointing to etiological factors and indicating measures for control of "non-infectious" ailments has been firmly established. Findings on the association of cigarette smoking with lung cancer and coronary heart disease are a beginning. The 25 years ahead should be ones of highly productive epidemiological studies of the chronic diseases. Gradually patterns of living including diet, which are essential to maintenance of robust health, will be clarified. The challenge of public health will be to obtain application of these as a normal part of daily living.

The public health approach to the most prevalent of all chronic diseases, the mental disorders and deficiencies, has been of recent origin. The community mental health program of the future will be a major State and local public health activity if the present trend of growth continues. Then the health of the whole person will be given due attention by county health units, which will have grown into well-recognized community health centers. But the future of mental health as a part of the total program of the State Board of Health is most uncertain. Important legislative decisions could reaffirm its support of consolidated community health programs or they could divide man, his health, and public health programs into physical and mental components.

There already exists an urgency in problems in sanitary engineering and environmental health; their variety and complexity will increase! The control of air and water pollution will be major activities in the years ahead. The maintenance of an adequate quantity and acceptable quality of water may become an urgent problem even in Florida. Possibly for some areas, the desalinization of water will be a routine activity 25 years hence. The continuing surveillance of water supply and sewage and waste disposal for a predominantly urban population more than double its present size will be very big business in the years ahead.

New sources of energy to power man's machines will be utilized as the fossil fuels become depleted or most costly. It may be expected that use of nuclear energy will be extended if it is freed of hazards. This will demand greatly expanded activities in radiological health for the protection of the industrial worker and of all citizens. This problem will be particularly important to Florida, with the beginning use of atomic energy for interplanetary exploration and travel. Detailed radiological surveillance around the area of the spaceport, which has been started already, will become routine.

During the historically short span of 75 years, the infectious diseases, which initially were the major if not the sole concern of the

State Board of Health, have been brought under increasingly effective control. Terrorizing epidemic diseases have been eradicated. Endemic acute and chronic infectious diseases have yielded to control and treatment; it is no longer unrealistic to speak of and plan for eradication of these diseases, even tuberculosis. It would be optimistic to suggest that the goal of the eradication of tuberculosis will be attained in 25 years, but current thinking encourages optimism. The venereal diseases are an exception; there is no basis for expecting that these will be other than a troublesome problem for the foreseeable future. Will it be known that a wide variety of sporadic infections are spread from domestic and wild animals and birds to man? And will viral diseases such as encephalitis be the dread epidemics of tomorrow? Though better recognized, these diseases are not "new." More will be heard of them since they will be the subject of intensive study by physicians, public health veterinarians, biologists, and virologists. More adequate knowledge and more effective control may be expected.

There will be evolutionary changes in a program of long standing, that of child health. Through the years, emphasis has gradually shifted from the child to the infant, then to the newborn, and more recently to the premature. There is now deep concern with prenatal influences on the developing embryo. But in the years ahead public health thought and action will move to include the preconception period. A recognized birthright of every child will be conception in response to parental planning. A major objective of infant hygiene of the future will be seeking to assure that the infant comes into a family where he is wanted and one with economic, educational, and social conditions favoring good health care and the optimum development of his inherent potential.

And what of the administration of medical care? Here the future activities of the State Board of Health probably will be determined by Federal legislation rather than by decisions at the State or local level. If programs of medical care, as for the aging, are extended, it would be anticipated that the State Board of Health would prepare itself to fulfill its proper role in an effective medical administration of such programs.

Some public health programs can be expected to grow with only limited changes in character. Presumably the purpose of vital records will remain the same, but procedures and volume will be modified. According to past experience, the volume of work in the Bureau of Laboratories will continue to grow. There will be greater attention to chemicals such as pesticides and detergents, and relatively less to the microbiological environment. "Auto-analyzers" and instruments of high sensitivity will be used. The insect pests undoubtedly will still be with us 25 years from now, though the intensity and nature of problems and control programs will be modified. Will the unreasoning

opposition to fluoridation of public water supplies continue? Who can tell? It must be assumed that fluoridation and dental health education will be of continuing concern. Presumably also, there will be the economically underprivileged who will need, and will be receiving, some dental care, hopefully more adequate than at present. And the need for narcotics control will still be here. All of these programs will be expanded and somewhat modified, but still the services will be familiar ones.

In public health administration, there will be notable advances in cooperation. The voluntary and official health agencies will have grown closer together, each sharing in a partnership seeking common goals. The health-related activities in other governmental agencies will be a united part of the total fabric of public health. The role of the State Board of Health as the leader in community health matters will be freely acknowledged. However, the broad accomplishments for the protection and improvement of the public's health will be the result of team endeavor.

And there are hopes. Can we dream of a personnel program which will assure that public health will attract and retain the particularly competent? Essential to this will be a program of continuing education for professional public health personnel, with scheduled leaves for advanced education. There will be a wider interest in research and a critical continuing evaluation of the efficacy of all programs. And there will be citizens with a basic education in the science of health and a secure understanding of the role of their State Board of Health. And above all, we can anticipate a public which will enjoy the benefits of the great advancement in the medical sciences and will live a happier, richer, and healthier life from early infancy to a ripe old age.



DIRECTORS AS OF 1964  
of  
FLORIDA'S PUBLIC HEALTH PROGRAMS  
HON. FARRIS BRYANT  
Governor of Florida

BOARD MEMBERS

Eugene G. Peek, Jr., M.D., President  
Ocala

T. M. Cumbie, Ph.G., Vice-President	William O. Shumpert, D.D.S., Member
Leo M. Wachtel, M.D., Member	W. S. Horn, D.O., Member

STATE HEALTH OFFICER  
Wilson T. Sowder, M.D., M.P.H.

DEPUTY STATE HEALTH OFFICERS

Malcolm J. Ford, M.D., M.P.H.* Program Planning	Elton S. Osborne, M.D., M.P.H.* Operations
--	---

**Administration**

Coordinator of Training .....	Robert V. Schultz, M.D., M.P.H.
Division of Health Education .....	Elizabeth Reed, R.N., B.S.*
Division of Personnel .....	Miles T. Dean, M.A.
Division of Public Health Nursing .....	Enid Mathison, R.N., M.P.H.

**Bureau of Research**

Assistant State Health Officer .....	Albert V. Hardy, M.D., Dr.P.H.*
--------------------------------------	---------------------------------

**Encephalitis Research Center**

Assistant State Health Officer .....	James O. Bond, M.D., M.P.H.*
--------------------------------------	------------------------------

**Bureau of Local Health Services**

Assistant State Health Officer .....	L. L. Parks, M.D., M.P.H.*
Assistant Director .....	Hubert U. King, M.D.
Division of Sanitation .....	A. W. Morrison, Jr., R.S.*
Division of Nutrition .....	

**Bureau of Finance and Accounts**

Assistant Director .....	Fred B. Ragland, B.S.
	Paul R. Tidwell, B.B.A.

**Bureau of Vital Statistics**

Division of Data Processing .....	Everett H. Williams, Jr., M.S. Hyg.
Division of Public Health Statistics .....	Harold F. Goodwin, Acting Director
Division of Vital Records .....	Oliver H. Boorde, B.S., B.A.

**Bureau of Dental Health**

	Floyd H. DeCamp, D.D.S.
--	-------------------------

**Bureau of Narcotics**

	Frank S. Castor, Ph.G.
--	------------------------

**Bureau of Laboratories**

Assistant Director .....	Nathan J. Schneider, Ph.D., M.P.H.
	Warren R. Hoffert, Ph.D., M.P.H.

**Bureau of Mental Health**

Acting Director .....	Elton S. Osborne, M.D., M.P.H.*
-----------------------	---------------------------------

Associate Director .....	Wade N. Stephens, M.D., M.P.H.*
--------------------------	---------------------------------

Assistant Director .....	Edward L. Flemming, Ed.D., M.P.H.*
--------------------------	------------------------------------

**Bureau of Entomology**

	John A. Mulrennan, B.S.A.*
--	----------------------------

**Bureau of Maternal and Child Health**

	David L. Crane, M.D., M.P.H.*
--	-------------------------------

**Bureau of Sanitary Engineering**

Assistant Director .....	David B. Lee, M.S., Eng.
--------------------------	--------------------------

Division of Special Services .....	Sidney A. Berkowitz, M.S., Eng.
------------------------------------	---------------------------------

Division of Water Supply .....	Charles E. Cook, C.E.
--------------------------------	-----------------------

Division of Waste Water .....	John B. Miller, M.P.H.
-------------------------------	------------------------

Division of Industrial Waste .....	Ralph H. Baker, Jr., M.S.S.E.
------------------------------------	-------------------------------

	Vincent D. Patton, M.S.S.E.
--	-----------------------------

**Bureau of Preventable Diseases**

Assistant State Health Officer .....	C. M. Sharp, M.D.*
--------------------------------------	--------------------

Division of Tuberculosis Control .....	Dwight Wharton, M.D.
--	----------------------

Division of Radiological and Occupational Health .....	Edwin G. Williams, M.D.
--	-------------------------

Division of Epidemiology .....	E. Charlton Prather, M.D., M.P.H.
--------------------------------	-----------------------------------

Division of Veterinary Public Health .....	James B. Nichols, D.V.M.
--	--------------------------

**Bureau of Special Health Services**

Assistant State Health Officer .....	Simon D. Doff, M.D., M.P.H.*
--------------------------------------	------------------------------

Division of Hospitals and Nursing Homes .....	C. L. Nayfield, M.D., M.P.M.*
---	-------------------------------

Division of Chronic Diseases .....	J. E. Fulghum, M.D.
------------------------------------	---------------------

\*Served earlier in other Bureaus, Divisions, and Health Departments.

## PART II

# THE GROWTH OF INDIVIDUAL PROGRAMS

HERE has been a continuing concern with program development from the earlier days of the Florida State Board of Health. Some programs have completed their major task, as for example, malaria control, while others, as heart disease control, have their work before them. Most programs, however, have been ongoing activities. In these there has been a continuing process of development with significant modifications or additions in each of the historical eras described. It was the purpose of the chronological record in Part I of this monograph to provide a composite picture of the total interrelated public health activities of the time. It is the purpose of this presentation, in contrast, to provide panoramic views of individual programs throughout the 75-year history of the Florida State Board of Health or that portion of it during which the particular program operated.

Some repetition in this dual presentation seemed unavoidable. Available historical records were so voluminous that the task was one of selection.

Programs are considered beginning with those which received earliest attention and concluding with those which have had a formal place in the State Board of Health organization only in recent years.

This section is the product of a cooperative endeavor by the present and past program directors and the authors. The names of current directors are listed as a frontispiece for Part II of this monograph.

# ADMINISTRATION

THE basic pattern for the administration of public health services in Florida is prescribed by law. The highest authority is the official and policy-making State Board of Health whose members are appointees of the Governor. For many years, this Board was composed of "three discreet citizens." The law was amended in 1947. Now, the occupations of the five members are specified and include two physicians, a dentist, a pharmacist, and one other person. Appointments are for four-year staggered terms. The State Health Officer is ex officio the secretary of the Board. The State Health Officer also is appointed by the Governor for a term of four years. Unexpired terms are filled by appointment. In 75 years, Florida has had 10 State Health Officers. Table 3 gives their names and dates of tenure, together with those of the Presidents of the Board.

Tenures of State Health Officers and  
Presidents of the Board

## STATE HEALTH OFFICERS

J. Y. Porter, M.D., 1889-1917  
W. H. Cox, M.D., 1917-1919  
R. N. Greene, M.D., 1919-1921  
R. C. Turck, M.D., 1921-1925  
B. L. Arms, M.D., 1925-1929  
Henry Hanson, M.D., 1929-1935  
W. A. McPhaul, M.D., 1935-1939  
A. B. McCreary, M.D., 1939-1940  
W. H. Pickett, M.D., 1941-1942  
Henry Hanson, M.D., 1942-1945  
W. T. Sowder, M.D., 1945\*-  
A. V. Hardy, M.D., 1961-1962  
(Acting)  
W. T. Sowder, M.D., 1963-  
\*On leave 10/61-12/62

## BOARD PRESIDENTS

R. P. Daniel, M.D., 1889-1890  
W. B. Henderson, 1891-1900  
E. M. Hendry, 1901-1912  
F. J. Fearnside, 1913-1916  
C. T. Frecker, 1917-1918  
Joe L. Earman, 1920-1921  
C. T. Young, 1921-1924  
C. H. Mann, 1925-1929  
H. M. Smith, M.D., 1930-1932  
N. A. Baltzell, M.D., 1933-1939  
S. A. Richardson, M.D., 1940-1941  
Herbert L. Bryans, M.D., 1941-1957  
C. J. Collins, M.D., 1958-1960  
John Milton, M.D., 1960-1962  
Eugene Peek, Jr., M.D., 1962-

The State Health Officer is the administrative head of the State Board of Health. His responsibility to the Board and to the public is to see that Florida's public health program operates in an efficient manner. He is the acknowledged public health leader in the State. Of the 10 men who have served, the first State Health Officer, Dr. J. Y. Porter, and the present one, Dr. Wilson T. Sowder, have had prolonged tenures. Dr. Henry Hanson held two appointments with a seven-year interval. The others served for one four-year term each or for shorter periods.

With the expansion of the State Board of Health there have been marked changes in the organization of its work. Bureaus were established first in 1916 when six were designated. The number remained at about this level for 20 years. With subsequent growth, the number has increased to the present 13 bureaus. The formally designated divisions have increased also. While programs have been distinctive, their grouping for administrative purposes has varied. Earlier bureaus which expanded markedly have become multiple bureaus and/or divisions. The advantages of giving status to programs of particular interest to professional groups has led to the establishment of some bureaus when the program of work was in an early stage of development. Alignments and designations have remained "fluid" in the past and undoubtedly will continue so in the future. There have been and will be changes with the addition of new activities. In this report, our interest has been in programs rather than in changing alignments.

With the increase in numbers of personnel employed by the State Board of Health, the procedures for personnel administration have become increasingly complex. Beginning with the establishment of Federal grant-in-aid programs in 1936, the requirement that State agencies receiving such grants must adopt a merit system of employment acceptable to the Federal agency was instituted. The first merit system under which the State Board of Health operated was placed in effect in 1941. It was closely related to those State agencies which received Federal grants and was readily adaptable to the needs of those agencies; however, in 1956 the Florida Legislature passed measures creating the present Florida State Merit System which included several state agencies not formerly covered. In its developmental period, this new system proved to be much less responsive to the needs of the State Board of Health and growing pains became apparent.

At the present time sincere efforts are being made by the Florida State Merit System director and his staff to make this expanded system of classified employment into an instrument to more readily assist the agencies in solving personnel problems. It is hoped that the rapid maturation of the system and a better understanding on the



part of the agencies which it serves will resolve most of the problems which have existed for the past few years.

The State Board of Health began with an operating budget of some \$25,000 annually which has grown to approximately \$25,000,000. Fiscal procedures have grown accordingly and have required further expansion to satisfy State and Federal auditing requirements. The functions of a fiscal officer of two decades ago have become the work of one of the larger bureaus of the State Board of Health. Now public health is big business and its fiscal affairs are handled in a businesslike manner.



## VITAL STATISTICS

HOW Florida made "vital statistics" truly vital is a lengthy story. Their collection got off to a slow and difficult start even with support of the newly organized State Board of Health, the dynamic State Health Officer, and the Florida Medical Association. Dr. R. P. Daniel, Board Chairman, and Dr. Porter both deplored the many and varied obstacles which retarded this important facet of health work.

The State Health Officer pounded away at physicians to report. He begged, cajoled, and threatened, explaining that statistics are vital and must be gathered in an efficient manner to provide guiding information for public health. A statewide system of monthly reports from Florida cities was the first of a series of trial-and-error plans offered by the State Board of Health. Many years were to pass before a satisfactory plan and law could be put into effect.

The earliest vital records in the State date back to 1594 and are found in St. Augustine. They are the records of the Catholic Parish in that city and are believed to be the earliest recorded in the United States. During the period 1874-89, several municipalities in the State enacted ordinances and established a system for vital statistics registration. These early city records were kept by St. Augustine, Key West, Pensacola, Orlando, and Jacksonville. The City of Ocala has records dating back to 1890.

A regulation of the State Board of Health in 1889 called on city councils of every incorporated city and every county board of health having jurisdiction over unincorporated towns to collect and send to the State Board of Health a monthly report on vital statistics and a record of prevailing diseases. This report was to consist of data on births, deaths, and marriages. Forms were printed and distributed and great expectations were held by Dr. Porter and the State Board of Health, but they were not fulfilled. Dr. Porter is quoted as saying "what little has been done was thoroughly appreciated, but the mass left undone is lamentably deplored." After a three-year trial, the first regulations were abandoned and new ones initiated. In these, reports were requested from private physicians and midwives. *Florida Health Notes* went to every physician in Florida and across its cover sheet and many pages throughout each issue was stamped in large red letters "HAVE YOU REPORTED?" Birth and death reports, printed on the reverse side of penny postal cards, were to be sent directly to the State Board of Health. Again early reports were en-

couraging, but soon interest waned and the system proved of little value.

The first Vital Statistics State Law enacted in 1899 created a Bureau of Vital Statistics and legalized into law what had previously been the regulations of the State Board of Health. The early collection of vital statistics was carried on by the State Health Officer and a clerk. The great fire in Jacksonville in May of 1901 destroyed all vital records collected up to that date. In 1905 birth and death certificates similar to those currently employed were initiated. Later, for a time, a fee of 10 cents was paid to each physician and midwife for reporting a birth or death. At the end of one year the fees were discontinued due to lack of worthwhile results.

In 1913, with renewed interest, a "vital statistician" was appointed. Cities and towns over 500 population were encouraged to pass a "Model Ordinance" requiring registration of births and deaths. The State Board of Health offered to pay 25 cents for each certificate returned provided reporting was 90 per cent complete. The following year, this offer was extended to all municipalities, and within that year, 52 of the 200 cities and towns had placed this ordinance on their statute books. During the first part of 1915 a vigorous campaign was waged to have the ordinance passed by all municipalities. As a result, 66 additional municipalities passed the Model Ordinance and began collection of vital statistics. This was progress but the completeness and accuracy of reporting left much to be desired.

Through the interest aroused, the Model Vital Statistics Law was enacted by the Legislature in 1915. This had the endorsement of the Bureau of the Census, the Children's Bureau, the American Medical Association, and other health organizations. Florida had reason to hope for accurate and complete registration.

Local registrars were appointed to be responsible for rural areas as well as incorporated municipalities. By July 1915, the entire State was covered with registrars. There was some antagonism to the law by a few physicians and funeral directors, though the majority were eager to see Florida have accurate vital statistics. In 1917 the statistical tabulations were deemed sufficiently complete and accurate to warrant publication. Prior to this time, Dr. Porter had been apologetic about the accuracy and completeness of statistics supplied.

A qualified statistician was appointed director of the Bureau of Vital Statistics in 1918. Monthly reports were received from approximately 700 local registrars in the State. Soon a fireproof vault was completed for preservation of records and all old records from the year 1865 through 1916 were arranged and bound and indexes were started. The punch card method for machine tabulation of statistical data was inaugurated and from 1920 has been used continuously.

Florida was admitted to the Death Registration Area of the United States by the Federal Census Bureau in 1919, the thirty-third

State so recognized. This meant that the State had been tested and found to be at least 90 per cent complete in the registration of deaths. In 1924 Florida was the thirty-second State to be admitted into the Birth Registration Area. Press releases of the day indicated the occasion was celebrated throughout Florida.

The practice of notifying new parents that their child's birth certificate had been filed was inaugurated in 1924 and is still in effect. These birth notifications are of great value to parents in letting them know that their child has been properly registered, and secondly, in giving them an opportunity to see that all information on the record is accurate. The registration of marriages and divorces was centralized in the Bureau of Vital Statistics in 1927. Florida became the fourteenth State in the United States to centralize these records.

In the early years, requests for certified copies of records were relatively few. By 1936 the volume had grown sufficiently for the State Board of Health to start charging the 50-cent fee authorized by the 1915 law. During World War II, issuance of certified copies by the Bureau multiplied. The Bureau personnel in 1942 was three times the number employed two years earlier, and work continued in two and sometimes three shifts a day. Many agencies and businesses had become aware of the value of birth and death records as had the Armed Forces. The demand for certified copies has continued to increase since that time. Now all children entering the first grade of school must have a birth certificate, a great assistance in improving the registration system.

Between 1946 and the close of 1950, the basic local registrar system was reorganized so that county health departments became responsible for collection of vital records at the county level. This meant that the number of registration districts was reduced from about 500 to 67, one for each county. Where necessary, county health officers could appoint other persons in the county as sub-registrars if they were needed. For the most part, subregistrars were appointed in cities where a funeral home was located, as a convenience to funeral directors in obtaining burial transit permits prior to interment or removal of a body from the area.

Technical and legal improvements came gradually through the years. With the aid of a WPA project, all records through 1940 were indexed. Microfilming was inaugurated as an added protection for vital records. Laws were amended to regulate filing of delayed reports and to provide greater confidentiality for adopted children. Additional electronic tabulating equipment was obtained in 1952, and the Bureau was able to extend statistical aid to many programs. Data were tabulated for the Cancer Registry, the Tuberculosis Registry, the Bureau of Mental Health, and others. During the past decade, the Bureau has concentrated on expanding such statistical

services to other bureaus and to county health departments. In 1955 an expansion of the data processing equipment permitted the processing of payroll, inventory, registration of medical practitioners, and indexes for all vital records by machine. Since that time there has been continued expansion of data processing. A computer was installed in 1964 which greatly increased the data processing capability of the Bureau.





## HEALTH EDUCATION

**D**R. J. Y. PORTER was an educator. His keen mind recognized the need for dispensing information on every level on many problems related to the public's health. He knew that to gain cooperation there must be understanding. There was no avenue of communication which he did not utilize or invade if necessary. Scientific material had to be presented to the people in language which they could understand if there was to be informed action. Dr. Porter considered education of the "mule skinner" in Florida's lumber camps as important as that of the financial leader. He implored physicians to inform their patients of the effectiveness of sanitation in prevention of disease and in the prolongation of life. He emphasized, "Education in matters of health offers the most logical approach to the limitation of disease and deferment of death."

Only three years after the Florida State Board of Health was established Dr. Porter began the publication of *Florida Health Notes*. This has continued throughout the years with short interruptions due to lack of funds. Dr. Porter viewed this publication as a "mouthpiece" of the State Health Officer. Under his direction it contained articles simply written on various health problems facing the State. Many of these he wrote himself. They were tinged with humor, satire, pathos, and the cold, hard facts of the dangers of contagious diseases. He summarized his esteem for *Florida Health Notes* when he wrote in 1895, "A mite of a publication it is true, but not lessened thereby, for diamonds are not bulky." Today, approximately 20 thousand copies per month go to all parts of Florida.

A library also was a "must" with Dr. Porter. He needed it for himself, his staff, and professional persons in the health field. At first it was kept in his office. The first librarian writes, "Bookcases lined the walls of Dr. Porter's office. Stacks of manila envelopes containing reprints and pamphlets and unbound medical journals spilled over in unsightly heaps on the floor. A desk drawer was filled with news clippings waiting to be pasted in the newest scrapbook. Dr. Porter had accumulated a very important and valuable collection of printed material. Unfortunately, its very size decreased its value, because the collection was neither catalogued nor indexed. Dr. Porter discovered that he was not only preserving valuable information—he was burying it. The great Jacksonville fire of 1901 temporarily solved this problem by destroying all but a fragment of the collection. Dr. Porter was dashed but not defeated."

In 1912 the offices of the State Board of Health were moved to a permanent home. Here the library had a room of its own though not a secure future. The librarian continued, "In 1917, Dr. Porter retired . . . Dr. Hanson and the few others interested in the library had sought greener fields . . . The librarian had married. The library was forgotten and the books relegated to the attic. The number of trips those books made to the attic and back is in itself an index to the political ups and downs of public health activity in Florida."

During the thirties and forties, the Board of Health library was the one substantial Medical Library in the State. Its services were made available directly to those in Jacksonville and by mail to others in medical and health-related fields throughout the State. The library now has some 20,000 volumes, including a particularly valuable collection on yellow fever. Through its relations with other libraries, virtually any publication can be made available. The library operates as a part of the Division of Health Education.

With the appointment of district assistants to Dr. Porter, a person-to-person educational program was begun. By lectures, tracts written in simple language, bulletins on a wide assortment of topics, and posters (violent and horrifying in an effort to place fear of disease in the mind of the illiterate viewer), the public was advised of the ways to health and the consequences of not following the path laid out for it.

Today it is easy to look back and to recognize that, through the efforts of this purveyor of health information, a foundation was laid for adequate isolation, treatment, and control of communicable diseases in Florida. When people could not come to the source of knowledge, the message was taken to them. The three-car health train was an example. Equipped with all types of educational material and staffed with a knowledgeable team, it visited towns and hamlets far from the centers of population. The train operated for more than a year, going into retirement with Dr. Porter, whose brain child it was.

Another mobile unit appeared later, a truck laden with films and other materials for informing the hard-to-reach, geographically and mentally. Small one-teacher and consolidated rural schools were favored recipients of this entertainment, which was loaded with pertinent facts about health and disease. When there was no electricity in the schools, the films were shown from the rear of the truck at night to an audience of children and adults seated on the ground. Often, before generators were available, husky operators cranked the film shown by light from a carbide lamp. Many viewers had never before seen a motion picture. Today the State Board of Health has one of the largest and most active audio-visual libraries in the State, serving groups such as professional societies, schools, civic clubs, county health departments, and religious organizations.

Campaigns were a favorite method of transmitting information.

"Swat the Fly," "Suppress the Mosquito," and "Fight Tuberculosis" were early slogans. Often demonstrations were an important part of the campaign. In the early 1920's when the "Suppress the Mosquito" drive was in full swing, a Health Fair was held. One attraction was a demonstration of house screening to show how easy it was to fit the wire to the apertures. Later a candid photo revealed the lesson had not been learned; the screen door was propped open!

Education has always been of prime importance in public health activities in Florida, and a Bureau of Education was one of the first six bureaus established by the Board of Health in 1916. Subsequently this educational activity has gone forward under different names and varying administrative relationships. It has aided bureaus and divisions to initiate and expand the educational aspects of their programs, has gathered together a sizable library of films, slides, photographs, exhibits, and other visual aids for use by all types of groups, has written, published, purchased, and distributed a large supply of pamphlets on all phases of health and disease for use by professional and nonprofessional persons, has aided with the editing and publication of the Board's Annual Report and has supervised production of the popular State Board of Health monographs. It has also helped to interpret the State Board of Health and its policies, programs, and restrictions to the populace which it helps to protect.

Today there is no "program" of health education as such, but the Division of Health Education furnishes materials, specialized knowledge of techniques, and health education methods to all with whom its staff comes in contact. For example, since 1950 county health departments have been urged to employ health educators, and presently there are 11 such positions. Three bureaus employ health educators, who also maintains a professional liaison with the Division.

Mass media are still popular with middle- and upper-class persons, as in Dr. Porter's day. To newspapers, pamphlets, and exhibits on which so much emphasis was laid at the turn of the century have been added radio and television "spots."

For those who are not reached by mass media there is a reactivation of old concepts, particularly those dealing with "health opinion molders." When these influential persons are located in low socioeconomic communities and become informed as to the health problem(s) under consideration and the action that must be taken to rectify them, their influence with others of their own group is highly effective. This technique has been used with promising results in mass X-ray surveys, intestinal parasite control, and polio immunization projects.

One problem constantly facing the health educator is the lag between technical knowledge and social change. Through the years efforts have been made to make available to teachers the latest information about public health problems and methods for meeting them.

Rapidly growing numbers of community colleges in Florida present a challenge. Health career recruitment is another aspect of these contacts.

The fear motive is used less today than in Dr. Porter's time. The emphasis is more on positive health. The "rifle" approach has succeeded the "shotgun" technique and small, fairly homogenous groups of people have become a favorite target rather than cities or counties en masse. Close cooperation is enjoyed with voluntary health organizations singly or collectively, and many a health education problem has been approached jointly with them.

In 1951 the need for a "cross fertilization" of professional persons in public health resulted in the inauguration of orientation programs (three or more a year). Assistance with the conduct of meetings, seminars, workshops, symposia (particularly for professional personnel) has been a responsibility of health education. Continuing contact with the public, including talks to numerous groups, and activity with public school groups are another phase in the interpretation of public health. But the greatest emphasis has been laid on the fact that the most urgent job of health education today is to *help people and communities solve their own health problems.*

## PUBLIC HEALTH LABORATORY SERVICES

**D**OCTORS and public health workers of the early years faced one important question: How could Florida conquer the health hazards which lurked in its semi-tropical wilderness? How could they create the healthy environment so necessary to the State's continued growth and development? To the fledgling Florida State Board of Health and to the State Health Officer, these questions seemed easy to answer. Control the epidemic diseases and the State could grow in population and rich in wealth. But how could you do away with yellow fever, malaria, smallpox, diphtheria, typhoid fever, and other communicable diseases which caused much illness and many deaths? "By learning about them," was the State Board of Health's answer.

The urgent need for a laboratory was emphasized by Dr. Porter in 1901, as he wrote, "The proposition to establish . . . a bacteriological and chemical laboratory . . . outweighs all other suggestions at this time." The recommended establishment of the laboratory was delayed by "the calamitous fire" of May 1901. However, at the Board meeting in August 1902, Dr. Porter again emphasized the need. The chief work of the laboratory, he said, "would be to aid the physicians and the local health officers in the diagnosis of certain diseases; to detect tuberculosis; to determine when diphtheria cases may be properly released from quarantine." The laboratory also was needed "to examine blood smears for typhoid bacillus and malarial parasites; and secondary to this being the examination of water supplies and other investigations connected with public health questions . . ." The laboratory was authorized at this meeting. The first specimen was accepted for examination in January 1903. From its very beginning the value of the laboratory was recognized both by private practitioners and public health workers.

Obtaining proper quarters for the laboratory was a problem. A medical laboratory was regarded by most people as a necessary evil to be avoided at all costs, lest its presence infect those nearby with deadly diseases. Finally, a farsighted Jacksonville citizen who readily understood the usefulness of a medical laboratory made quarters available in a building which he owned at Main and Bay Streets. Delay in obtaining equipment also slowed the project. Said Dr. Edwardo Andrade, the first director of Laboratories, in his annual report for 1903: "Although a few specimens were examined during



the months of January and February, the laboratory was not ready for work until March, much of the apparatus being delayed." But with the arrival of the new equipment, the staff took heart. "As soon as the laboratory was properly equipped," Dr. Andrade's report continued, "a circular was sent to all the physicians in the State, setting forth the purpose of the institution . . ."

Contrasting the first year's total of 996 specimens with the 1,313 for the first year's operation of the New Jersey State Laboratory, Dr. Andrade observed with considerable satisfaction: "Comparing these numbers it will be seen that the laboratory has made a flattering success, so much so, when we know that this kind of institution was entirely new in Florida, that many of the physicians were not accustomed to make use of microscopical aid in their practice, and the means of communication are not so frequent as in other places."

The President of the Board of Health pointed to the "resourceful measures in disease detection which the laboratory has supplied," and added, "I am quite confident that many lives have been saved to the State by the instructive help and assistance to the physicians in securing an early determination of the nature of 'coughs,' of 'fevers,' of 'throat trouble,' and 'intestinal disorders,' which at times assume a complicated condition and puzzle the best and most skillful of medical men . . ."

From the beginning there was growth and the need for more personnel. Dr. Porter, looking back on the laboratory's first year of operation, wrote: "The Board stands greatly in need of a chemist for analytical examinations of water and food products which are suspected of impurity. Several times during the year, the office has been requested to give assistance in this direction, and has regretfully been compelled to say that the Board was not equipped for work of this sort."

Continuing, Dr. Porter stated: "When the State Board of Health determined upon a bacteriological laboratory in 1902, as an adjunct to its sanitary work in behalf of the people of Florida, it hoped that the importance of the project would immediately interest all classes of citizenship of the State, especially the medical profession, by the value of measures which were proposed for the speedy determination of disease organisms and by prompt, effective relief which such information must necessarily offer . . . It is aimed to make the laboratory a daily necessity to the busy practitioner. The physicians of the larger cities and towns have very generally availed themselves of the privileges of the laboratory which the Board has generously and gratuitously proffered the profession."

Was Dr. Porter's and the Board's optimism justified? The growing number of specimens sent in, and the expanding variety of examinations, provide an answer to that question. From the 996 examinations performed during 1903, the total jumped to 2,088 in 1904

and reached 2,896 in 1905. The total for 1908 was 4,006 and by 1910, when the two regional laboratories were established in Pensacola and Tampa, a total of 16,095 examinations were made. Growing steadily year by year, the laboratories passed the 100,000 mark in 1925. Fourteen years later, in 1939, the total examination went past the 500,000 mark. The year 1941 saw another significant new peak: 1,188,612 examinations were made, surpassing the million mark. The two million mark was passed in 1949. Six years later, in 1955, there were 2.5 million examinations. Subsequently there was a gradual increase to over 2,800,000 in 1963. In short, laboratory work quadrupled from 1910 to 1920, trebled in the twenties and thirties, and doubled in the forties, and has continued to increase.

In the early years the public health laboratory was the only laboratory available to physicians in Florida. The indispensable nature of these services to the progressive physician was rapidly recognized. There was pressure for authorization of regional laboratories. This led in 1910 to the establishment of laboratories in Tampa and Pensacola. Regional laboratories were opened in Tallahassee and Miami in 1914 and in Orlando in 1948. The newest of the regional laboratories is located at the Southeast Florida Tuberculosis Hospital at Lantana. This laboratory was started in 1952 as a joint enterprise of the State Board of Health, State Tuberculosis Board, and the City of West Palm Beach.

During the 60-year life of Florida's public health laboratories, there have been, in addition to phenomenal growth, marked changes in the nature of the work. In the very early years, urinalyses, blood counts, and tissue examinations were important activities. With establishment of hospital laboratories, these services were discontinued. For a substantial period attention was devoted almost exclusively to tests related to control of communicable diseases. This continues as a major activity with, in very recent years, the addition of the technically exacting virological procedures. There is also new emphasis on the importance to health of the chemical and radiological environment. This led to the recent expansion of chemical services and establishment of the radiological laboratory within the Orlando Regional Laboratory.

In the early days physicians used the public health laboratories in the examination of severely ill patients. A high percentage of specimens submitted were positive in the tests requested. Gradually emphasis shifted to prevention, to early diagnosis, and to casefinding. At present many specimens come from apparently healthy individuals. The goal in tuberculosis is to establish the diagnosis before the individual has clinical evidence of disease and, before he can spread the infection. At first the laboratory aided the practice of curative medicine; now its major objective is to foster the practice

of preventive medicine by private physicians as well as health officers.

With 49 years of continuous service to public health in Florida (46 years as director of the Tampa Regional Laboratory). Homer Venters has seen and participated in much of the history of Florida's public health laboratories. He has served under all of Florida's State Health Officers. He recalls, "The Jacksonville Laboratory was a very busy place when I arrived. Dr. Hanson's first assistant prepared the tissue sections for him to read. Drs. Ivy C. Youmans of Miami and Herbert Mills of Tampa (the directors of these Regional Laboratories) also prepared and read tissue slides. As tissue examinations were being farmed out and finally turned over to the pathologists, the laboratories were becoming busier with syphilis serology. First there was the Wassermann, later the Kolmer complement fixation test. The volume of work in syphilis serology continued to increase." Progress toward the development of more highly specific and/or simpler tests for syphilis has continued. Currently, new serologic tests of high promise are being evaluated. The better is being superseded by the still better.

Mr. Venters continued, "The Tampa Regional Laboratory when I first knew it consisted of one large room, which included the office, and two small rooms on the second floor of the present two-story building. Our original laboratory force of four employees gradually expanded as the volume of work increased until today there are 22 employees. To heat the laboratory we used a small wood stove for several years. Not until Dr. Turck was State Health Officer did we have a fan. As the volume of work continued to grow, the Tampa Regional Laboratory began to expand until now all available space is utilized by the laboratory, one small office excepted. Techniques began to improve; for example, the hanging-drop Widal test became a tube dilution procedure. Chills and fever describe a very common illness which gave us many laboratory tests. Many of our physicians refused to treat malaria unless we found blood smears to be positive. My most productive day revealed 13 positive malaria slides."

To satisfy the increasing demand for laboratory services, modern facilities were required. New laboratory quarters have been provided as follows:

1952—With cooperation of the State Tuberculosis Board, modern laboratory facilities made available in the Lantana (Palm Beach County) and the Tallahassee hospitals.

1954—Jacksonville Central Laboratory building completed.

1957—Miami Regional Laboratory built.

1958—Orlando Regional Laboratory completed.

1964—Pensacola Regional Laboratory started.

1964—Tampa Regional Laboratory planned, with building sched-

uled for 1965. Each was financed by a combination of State and Federal (Hill-Burton) grant funds.

All new buildings include modern installations and equipment.

Effective programs of training were designed to prepare Floridians to work in their own laboratories. This included inservice training for all laboratory workers and a cooperative program with the University of Florida which encouraged senior personnel to continue with graduate training to the master's degree. More advanced training in Schools of Public Health was encouraged also. The current director of Laboratories, the assistant director, and three regional laboratory directors are among those who were drawn to the Bureau of Laboratories by these training programs.

There has been a new and persistent effort in recent years to elevate the quality of all medical laboratory service in the State through educational programs and workshops in the various laboratory fields. In syphilis serology this has included also the submission of check-testing samples. On initiating this "evaluation program" in 1948, only a little more than one-half of the participating laboratories attained results deemed satisfactory. Currently, 365 medical laboratories are participating regularly, and virtually all report findings indicative of highly dependable tests. Similar cooperative work has been developed more recently in other laboratory fields. The purpose is to make training and consultation freely available to general medical laboratories.

The most recent developments involve participation in casefinding in chronic diseases, including the metabolic disorders which result in mental deficiency. The chemistry laboratory added services required by the State food, drug, and cosmetics law and is participating in studies of pesticides as a hazard to human health. There are the expanding virology section and the radiological chemistry laboratory. In the view of history, all of these services are so new that any full consideration of them would be "Looking to the Future."

Florida's public health laboratories were organized before there were bureaus, and they have grown both as a part of the Bureau of Communicable Diseases and as an independent Bureau. Leadership has passed from hand to hand. Of 12 persons who served as Director of Laboratories, six had tenure of five years or more, including the present director, Dr. Nathan Schneider. One, Dr. Albert V. Hardy, served for over 10 years. Two preceding directors became State Health Officer, Dr. Henry Hanson and Dr. B. L. Arms. The Laboratory has had many long-term employees. It has been and still is a congenial "home" and "workshop" for those who serve there.

In this day and age, the laboratory is accepted as an essential institution. It is a part of all but the smallest hospitals or clinics, and many clinical laboratories are operated independently by patholo-

gists, clinicians, or qualified medical technologists. It is a common occurrence now for new laboratories to be organized, but the development of the first in Florida over 60 years ago was an unprecedented step. All honor to these pioneers!





## SANITARY ENGINEERING AND SANITATION

THE control of disease through environmental sanitation was demonstrated dramatically in 1905 by the prevention of spread of yellow fever in Tampa, or its spread from Pensacola. There followed promptly a broader concern for prevention of malaria through environmental control. By 1908 attention to hookworm disease was added, first approached as a medical problem and later as a major task of environmental sanitation. These were the early seeds from which have grown the extensive programs in sanitary engineering, entomology, and sanitation.

The addition of an engineer to Florida's early public health team came in 1916. At that time, the U. S. Public Health Service was invited to send an investigator to Florida to survey the health situation. Dr. Porter hoped to obtain from this study a scheme of reorganization which "would make Florida rank foremost in health in the list of States in the Union." Recommendations were presented, and as time and funds permitted changes were made. One recommendation urged creation of a "Bureau of Engineering." This was acted upon promptly and George W. Simons, Jr., became its director. He is credited with persuading legislative bodies to act favorably upon sanitary measures which are in use today or form the framework on which later laws have been based.

The State Board of Health undertook an intensive program to suppress the breeding of anopheles mosquitoes by means of drainage and screening of homes and living quarters in localities which according to statistical reports had a large number of cases of malaria. Mr. Simons was entrusted with the difficult task of arousing sentiment in favor of the program.

"Suppress the Mosquito" was the battle cry. Mr. Simons traveled the State lecturing, showing pictures, movies, and exhibits. Posters, pamphlets, and all available media were used to inform the people of ways in which the mosquito breeding might be prevented. Soon enthusiasm was reported. The Florida Anti-Mosquito Association, organized in 1922, helped to spread the propaganda. The campaign was directed at all species of mosquitoes, pests as well as carriers of disease. [The Association was largely responsible for passage of legislation in 1949 permitting creation of mosquito control districts and authorizing the State-aid program.] Dr. Porter said that "to Mr.

Simons, as to no other one man, is due the cooperation of communities and individuals" in the campaign.

It has been noted above that the Bureau of Engineering, as then designated, was created in 1916 with Mr. Simons as director. He served until 1925. After an interval with several changes in directors David B. Lee was named director in 1941 and has continued in that post except for war service.

With the mushrooming population due to World War II, the Federal Government made available funds for installation of sewage treatment plants and the provision of safe water supplies. A program of malaria control in war areas also received assistance from the U. S. Public Health Service. Increased demand for milk by the services greatly overtaxed milk handling facilities. Special surveys were called for by Army and Navy officials, and assurance of proper pasteurization was demanded. Another required function was certification to the U. S. Public Health Service of all milk supplies and water furnished to common carriers. With these increasing demands of the war years, there was simultaneously a loss of experienced workers to the military service.

Following the war probably the most extensive problem faced by the Bureau was in the field of industrial waste disposal. Many citrus canneries discharged waste into adjacent bodies of water. With the advent of warm weather, putrescible mats formed on the surface and provided excellent media for fly breeding. The Florida Citrus Commission, working with the Bureau, eventually largely solved the problem by developing a byproduct using wastes for processed cattle food.

With the growth of Florida in population and industrialization, there was growing concern over the use and the quality of water. Pollution of streams in Florida had increased due to inadequate or improper handling of wastes. Stream pollution by 1948 had become a health and economic hazard. More public drinking water supplies were becoming more contaminated every year. Recreation facilities were being diminished and shellfish areas were being eliminated. For these reasons the State Board of Health embarked upon a stream pollution abatement program. A shortage of funds limited the project but its urgency indicated the need for a prompt beginning to meet the modern expectations of society.

Florida's industrialization heightened problems, as water used for industrial as well as domestic purposes was discharged into streams. The pollution abatement campaign included three facets: education and promotion, planning and execution, and operation and maintenance. To attain objectives through education was considered particularly difficult. Municipalities, individuals, companies, and industries had to be made to recognize the consequences of faulty waste disposal and necessity for proper practices. Many diverging interests

needed to be considered in the educational program. At times the vigorous opinions of recreationists, sportsmen, wildlife conservationists, and even of different industries conflicted. The firm objective of the Bureau was to serve the best interests of Florida.

The related problem of Florida's shellfish industry warranted and received much attention. This is a lucrative business and many public health workers have been concerned with related sanitary practices. Oysters, clams, lobsters, crabs, scallops, and shrimp all are found in Florida waters. Oyster and other seafood houses must be certified by the State Board of Health; beds from which they are taken must be carefully inspected to prevent typhoid fever and other diseases. To watch over this industry and to protect it and the health of citizens, a seafood laboratory was established in Franklin County in the heart of the major oyster-producing area.

Involved with the waste disposal problem were mushrooming suburbs in all parts of Florida. The county health departments were besieged with angry complaints when septic tanks overflowed due to the rise in water levels during rainy seasons. Enthusiastic real estate developers installed septic tanks for homes on small plots of ground. This meant that saturated soil permitted effluents to rise to the surface, to the consternation of the housewife. Picketing by housewives in one instance called attention to the situation.

Many developers, because of such unhappy situations, were encouraged or required to install sanitary sewerage systems for their subdivisions. The campaign was to continue for many years. It was difficult to convince home builders that money invested in proper community sanitary facilities was money well spent. Taxpayers could see streets, sidewalks, lights, but pipes buried underground or a sewage treatment plant hidden in the woods was not impressive.

In 1963, *Florida Health Notes* devoted an issue to "Lurking Danger—Environmental Sanitation—Problem of the Suburbs." The term "subdivision" usually refers to planned areas of housing or a tract of land subdivided into lots. It is also used to mean those sections of suburbia referred to as "unincorporated areas of urban density" which have developed into a sea of houses. More often than not these "suburbs" depend on septic tanks for waste disposal.

The septic tank is considered by public health officials as an admirable facility for its purpose, which is the disposal of sewage from one residence situated on sufficient acreage of suitable porous, well-drained soil. Septic tanks have long caused alarm to sanitary engineers in Florida. Laws permitted the State Board of Health to use only "recommendations and persuasion" in dealing with this problem. The situation remains, daily becoming more critical.

There appears to be no way for health department personnel to prevent an individual from purchasing a lot in any subdivision and building a house on it. If construction is brought to the attention of



*The privy (above left) may not have been as sanitary as it should have been but was one blow against hookworm disease. The drainage ditch running through this subdivision (upper right), serves as a catch basin for septic tank discharges and is far from sanitary. Below is a modern sewage treatment plant, safe and sanitary, and protecting the community.*





the county health department in time, it can inform the owner of local building regulations and ordinances, sanitary problems to be faced, Federal Housing Administration and Veterans Administration restrictions, and subdivision laws if they exist. However, any forcible attempts to prevent an individual from building and occupying his own house on his own tract of land would understandably meet with opposition on constitutional grounds. As a result, it frequently becomes necessary for the health authority to look to individual solutions to individual sanitary problems, for which, in some instances, there is no known simple and inexpensive answer.

The construction of sewage treatment plants has been a part of progressive city and town development. Incorporated areas, with their taxing powers and with their need for sanitary disposal of sewage, have in many cases gone ahead with construction as a matter of course. But around each municipality in recent years there have been rapidly growing suburbs composed of planned subdivisions and unplanned housing areas. No agency has been specifically authorized to build and operate public utilities for these homes.

In the olden days people bathed only on Saturday nights and washed their dishes and their clothes (one rinse) by hand. Each person used around 30 gallons of water a day. Now, with automatic dish and clothes washers (with their many cycles of operation), air conditioners, swimming pools, cars to wash, and more frequent bathing, one person uses nearly 100 gallons of water a day.

However, the picture is not all dark. In 1946 there were 25 municipal sewage treatment plants and in 1963 there were 1,152; during the same period 300 public water supplies increased to 1,000. Meeting the needs of shifting population, including the influx of people from all over the nation, has made Florida one of the leading states of the nation in construction of new water and sewage treatment plants outside city limits. It is predicted that this problem will become even more complicated as Florida approaches the shift to megalopolis, said to be the next step in population change.

A new facet of the sewage disposal problem is becoming evident with hard laundry detergents. These are not readily decomposable in water and are appearing in fresh water supplies in some communities. Dade County was the first to ban use of hard laundry detergents, and a special House Committee on Water Resources will ask the 1965 Florida Legislature to ban their use after 1965.

Modern research on air pollution problems began seriously in 1953, when the University of Florida initiated a study, financed by the U.S. Public Health Service and the pulp and paper industries of the State. In 1955 the State Board of Health was authorized to establish regulations for control of air pollution, and two years later the Air Pollution Control Commission was formed. Besides control of air pollution, its duties included research and education.



Governor Collins in 1960 asked the State Board of Health to undertake a statewide survey of this problem and to recommend steps to avoid further problems and correct existing ones. The U. S. Public Health Service with the State's Bureau of Sanitary Engineering conducted the survey. Their report noted the phenomenal growth of Florida and estimated that there would be 700 manufacturing plants, with an increase of 18,500 jobs, within the decade. Even the driving of cars to work of these extra people would add significantly to the pollution already emitted into Florida's air. It was presumed that the growth in population and industry would occur in urban areas, tending to further increase existing air pollution.

Complaints already had been registered by 32 counties and 62 cities. Property damage due to air pollution had been reported in 17 counties and 25 cities, with damage to vegetation from air pollutants reported from six counties, chiefly Polk and Hillsborough. Emissions from phosphate industries were alleged to have caused damage to gladioli and tomatoes, decreased the yield of citrus groves, and affected the health of cattle which ate contaminated forage.

Power plants and phosphate processing produced two of the most serious air contaminants. Since Florida produces 75 per cent of the world's pebble phosphate and 25 per cent of the nation's supply of sulfuric acid, the magnitude of the problem is apparent. Sulfur dioxide and sulfuric acid emitted from processing plants are two of the most troublesome air contaminants. On the favorable side, Florida has average winds of approximately 12 miles per hour to move the air and no mountains to encapsulate air polluted by industrialization. Because of the rise in commercial uses of fluorine, several plants have initiated plans to recover and sell fluoride, as a byproduct, thus contributing to the control of this harmful contaminant.

Disposal of refuse by burning at dumps, dust and smoke from asphalt paving-mix plants, and smoke and flying ash from sawmills are among the other offenders.

In 1961 the State Board of Health approved and adopted a new chapter of the Sanitary Code on air pollution, giving counties authority to regulate air pollution nuisances.

A new law providing for inspection of bedding, enacted by the 1953 Legislature, added new duties to the Bureau of Sanitary Engineering. In 1954 a total of 2,348 manufacturers, renovators, and retailers were registered by the Bureau. This law was intended to assure purchasers that they were getting what was indicated on the label attached to the merchandise. During inspections a strange array of foreign objects was retrieved from material used for stuffing.

The Division of Sanitation was activated within the Bureau of Local Health Services in September 1958. Original responsibilities

of this division included provision of consultation to county health officers and sanitarians, the operation of inservice training programs for sanitarians, recruitment of qualified sanitarians for county health departments, and promotion of foodhandler training. Activities related to adequate housing were assigned to the division shortly after its inception. By mid-1959 a number of environmental sanitation programs were added and certain activities formerly performed by State personnel were transferred to the county health departments. The Division of Sanitation currently has responsibilities for general sanitation in the following areas: tourist and trailer parks; migrant labor camps; food processing, sales, and service; abattoirs; rendering plants; bottled water plants; water and waste disposal for private homes; housing; schools; child care centers; public buildings and facilities; certification of common carrier facilities for water, food, and waste handling; problems in the disposal of garbage and rubbish; and the handling of sanitary nuisances.

Training programs have been extended to include periodic, advanced topical courses in the various areas of environmental sanitation.

The Division of Sanitation carries out a continuing evaluation of county health department environmental health programs in an effort to assist the counties in upgrading and updating these services. Statewide recruitment activities are directed toward obtaining better qualified sanitation personnel with sufficient science background and other necessary aptitudes to effectively fill positions as sanitarians in county health departments.

Due to the tremendous growth of Florida and the multiplicity of programs which this growth has brought forth, the Bureau of Sanitary Engineering has been divided into four Divisions, namely: Water Supply, Waste Water, Industrial Waste, and Special Services. These, and the Divisions of Sanitation, together with Radiological and Occupational Health, Veterinary Public Health and the Bureau of Entomology, all are engaged in the many facets of environmental health designed to make Florida a better, safer, and healthier place in which to live, work, and play.

## ENTOMOLOGY

EARLY WRITINGS about Florida repeatedly call attention to the problems caused by mosquitoes and by what are now known to be mosquito-borne infections. When statehood was being discussed in the Congress in 1845, Florida was described as a land of swamps and mosquitoes, which would never be a fit place in which to live. It did have its recurring yellow fever and dengue epidemics, and malaria was an ever-present serious health hazard. The discovery at the turn of the century of the role of the mosquito as a vector made prevention a practical possibility.

The early mosquito control in the State was for the most part directed against the yellow fever mosquito, *Aedes aegypti*. It was not until World War I that drainage and larvicidal measures were introduced at Camp Johnston, now the Jacksonville Naval Air Station.

After this initial start, the State Board of Health undertook its first malaria control project in 1919 in the city of Perry, a typical malarious community. At that time this project was one of the largest of its kind in the country and involved the removal of 47,000 cubic yards of earth for drainage canals and ditches, at an expenditure of \$28,000. The cost was borne by the city of Perry, Taylor County, and the Burton-Swartz Cypress Company, with the State Board of Health furnishing the technical supervision. The president of the company stated some years later, "This was the most profitable money which the company ever spent."

The first great forward step in the control of salt marsh mosquitoes in the State was the organization of the Florida Anti-Mosquito Association in 1922. Its first president was Dr. J. Y. Porter. Membership included both lay and professional persons, all enthusiastically devoted to the control of mosquitoes. This energetic body has been very influential through the years and it continues to be active today. It has performed a momentous duty in the promotion and coordination of the mosquito control activities in Florida. The Rockefeller Foundation's malaria research station in Tallahassee, under the direction of Dr. Mark Boyd, conducted studies of inestimable value, not only to Florida but also to the world. All of the malaria control training for the Army and Navy for 18 months after the inception of World War II was carried out in Florida.

The Civil Works Administration and the Work Progress Administration did a tremendous amount of mosquito control during

the depression period. The records show that 1,582 miles of ditches were dug. Most of them were small, hand-dug ditches and in the salt marsh areas were ineffective after one year.

The present directors of the Bureaus of Sanitary Engineering and Entomology and the assistant to the director of Laboratories all entered public health through participating in malaria control in west Florida.

To provide state leadership, a Bureau of Malaria Control was established in 1941. The U. S. Public Health Service had also studied malaria in the rural areas in the early thirties. Prior to and during World War II, there was substantial Federal support for control of malaria and yellow fever mosquitoes in war areas.

After the war the U. S. Public Health Service started a DDT house-spraying program to destroy infected *Anopheles* mosquitoes to eradicate malaria from areas where the disease had been prevalent in the past. The last confirmed case of indigenous malaria was finally reported in 1948.

The spraying program was well received by the public, since it not only destroyed mosquitoes, but cockroaches and other household insects, particularly bedbugs. Many individuals were heard to say that this was the first time in their lives that they had been able to sleep without being bitten all night by bedbugs.

In the early thirties typhus fever began to be reported, and by 1935 there were 27 reported cases; by 1943, reported cases had reached 314, and the greatest number of cases (484) was reported in 1944. In 1945 the U. S. Public Health Service started a DDT dusting program to destroy the rat-fleas in the endemic typhus areas. Prior to this, a rat-proofing program was carried out in the major cities of the State. After the extensive dusting program was completed, the typhus rate dropped sharply, and by 1960 there was not a reported case.

The first great impetus in the field of general mosquito control and medical entomology took place in 1946, when the Division of Entomology was established in the Bureau of Sanitary Engineering. The Division was raised to independent bureau status in 1953. It continued to be responsible for promoting and carrying out all arthropod control work, and for the administration of all arthropod control funds, and enforcement of the Structural Pest Control Act.

The first State law on mosquito control was passed in 1925, making it possible for a county to vote for a mosquito control district and for the residents to tax themselves for control work. At the present time all of the mosquito control statutes have been combined. Under this law the citizens of a section of a county, or the entire county, can vote in a mosquito control district. Each county is eligible to receive, in cash or in personnel services, insecticides and material up to but not exceeding \$15,000, which can

be used for any type of arthropod control. In addition, the law authorizes 75 per cent matching funds on every dollar appropriated by counties or districts. The law provides that when sufficient State funds are not appropriated the matching funds shall be prorated equally among counties and districts.

All mosquito control districts and boards of county commissioners to be eligible to receive funds from the State Board of Health, must submit a detailed work plan and budget. For permanent control, projects must be mapped and duly approved by the State Board of Health. At present 54 of Florida's 67 counties have active mosquito and arthropod control programs. Counties are appropriating \$4,865,723 and the State, \$1,650,000 annually as aid to districts and counties, making a total of \$6,515,723 for actual control work. Funds for administration and research are separate.

Within the last decade the State Board of Health has opened its Entomological Research Center at Vero Beach and has established a field study activity at Winter Haven. The Center at Vero Beach has biological laboratories and an insecticidal facility. A dogfly laboratory has been authorized and will be built near Panama City. The State provides \$219,822 for research at Vero Beach and Winter Haven. For administration and supervision of all the arthropod control in the State, and for overall direction of research, the Bureau of Entomology expends \$174,912 annually.

Great strides have been made in the control of mosquitoes and other arthropods in and around populated areas. The control of salt marsh mosquitoes in the past 10 years has made it possible for the ever-increasing use of Florida's beaches by tourists as well as residents. During this period, in some of the worst salt marsh mosquito counties, the average yearly trap collection has been lowered from around 95 female mosquitoes per trap night to around five. Florida still has gigantic freshwater mosquito problems.

After 50 long years of trying to control mosquitoes through an organized approach, there is still a long way to go. The only answer to the many remaining complex arthropod and other problems is through research and the application of findings. This can be accomplished only through diligent and careful study and effort by dedicated people.

The Board of Health's entomological programs are, to a unique degree, the product of the vision of one man, its present director, Mr. John Mulrennan.



## VETERINARY PUBLIC HEALTH

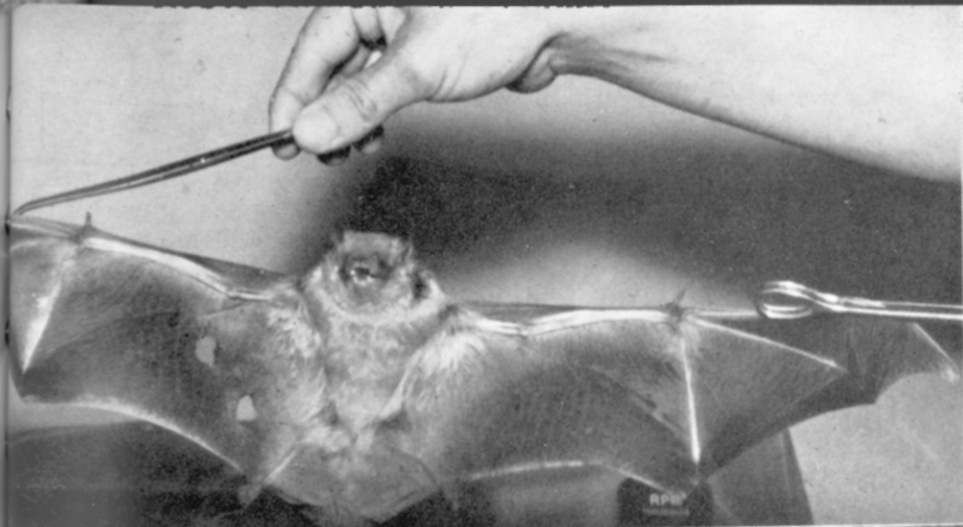
**D**URING the Spanish American War epidemics of glanders, a disease of horses transmissible to man, occurred in Jacksonville and Tampa where men and horses were crowded together awaiting embarkation for Cuba. The disease was introduced into Florida when wild range horses were imported from South Dakota. It disappeared when the automobile "took over" and horses no longer were crowded into urban stables close to human habitations.

While infections transmissible from animal to man were rarely fatal, they caused great financial loss to Florida. Through Dr. Porter's concern for economic welfare as well as for health, the first veterinarian in the State Board of Health was named in 1903. The program to protect both man and beast has continued from that time. The veterinarian directed his early attention primarily to glanders, eradication of cattle ticks, and control of hog cholera.

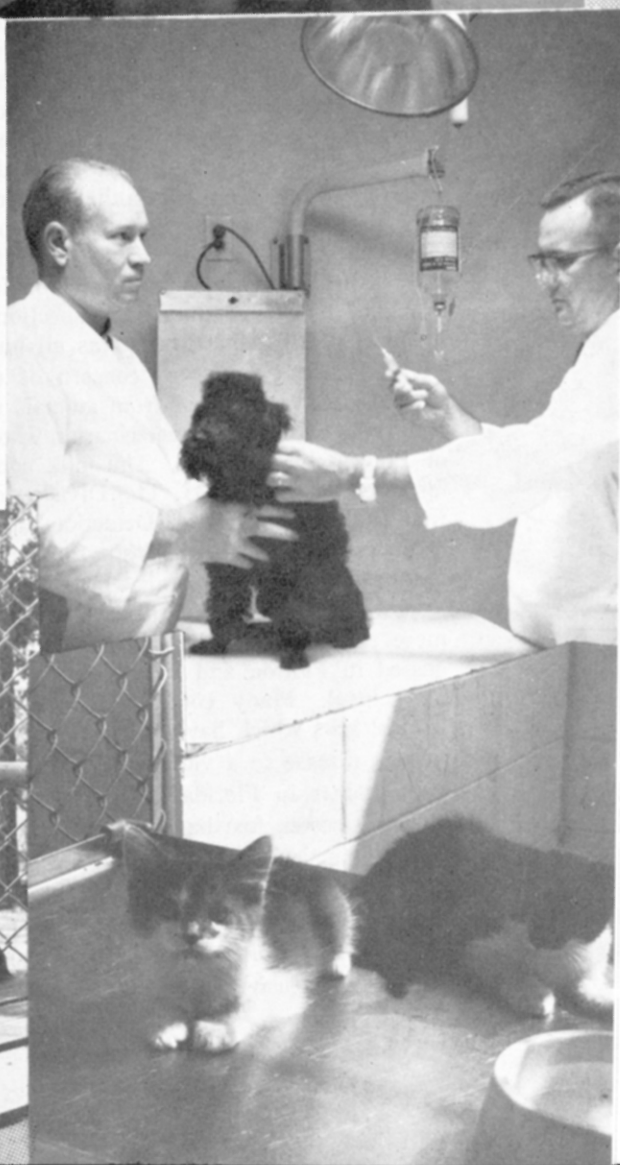
Raising hogs for local and foreign consumption was big business in Florida. It was also a big problem. "Hog cholera was the greatest question before the people at the time," the State Health Officer said. The disease had been prevalent for years and had caused heavy economic loss. In 1913 alone, 135,600 hogs died from the disease. In the years 1911-15 the State Board of Health spent \$73,500 on hog cholera vaccine. This was given free to farmers; in 1916 the appropriation was reduced to \$10,000 a year and farmers were required to pay for the vaccine if they were able to do so. Programs to eliminate hog cholera were initiated and farmers were taught the proper method of administering the vaccine. The educational campaign met with much success.

In 1914 the veterinary program was enlarged by the addition of a full-time veterinarian and 12 assistants. Also, 32 farm agents were recruited to help farmers in their immediate neighborhoods. Veterinarians throughout the State volunteered to serve for a small fee. This informed group expanded the educational program. About this time also, regulations were drafted to control the importation of animals into Florida. This kept out animals infected with a number of diseases which could be spread to local stock.

The campaign to eliminate cattle ticks caused much excitement. There were violent reactions. The educational aspects of the effort were slow to reach objectors. Counties on the lower east coast of Florida were the first to be freed of the tick. As other counties realized benefits of the program, they soon followed the leaders.



*Both domestic and wild animals may have rabies. Bats and raccoons are high on the list of wild animals found to be infected. Dogs and cats can be protected against the disease by inoculation.*



Big money was involved in improving conditions not only among beef cattle, but also among dairy herds. In 1917 the State Livestock Sanitary Board was created to serve as recipient of matching Federal funds, and the State Board of Health veterinarians were transferred to that agency.

About this time ordinances began to appear in cities throughout Florida requiring dairies selling milk or milk products to the public to have their cattle tuberculin tested. Later ordinances required pasteurization. Bone and joint tuberculosis, resulting from drinking milk from tuberculous cows, was being revealed by the program for crippled children. Considerable controversy arose over destruction of infected cattle and the pasteurization of milk. The relative merits of raw and pasteurized milk were for many years the subject of heated discussion. However, as these ordinances were enforced, orthopedic cases of tuberculosis declined.

From 1917 to 1947 the State Board of Health did not have a veterinarian on its staff. A number of local health departments employed veterinarians for meat inspection and other related activities. The State Livestock Sanitary Board conducted a meat inspection service, which was accepted by some abattoir operators on a voluntary basis prior to 1952, when it became compulsory. The early fifties was a period of transition from city inspection to State inspection; by 1955 the meat inspection by veterinarians employed by local health departments was all but phased out.

In late 1947 renewed concern of the State Board of Health with disease transmitted from animals to man resulted in appointment of a public health veterinarian who was assigned to the Bureau of Preventable Diseases. The milk consultants have served under his direction since 1951. The Division of Veterinary Public Health was established in 1954. Detection and control of animal diseases transmissible to man and inspection of foods of animal origin were focal points of the expanded program.

Rabies is a terrifying disease which has been known to man for more than 20 centuries. It has been studied, surveyed, and discussed in Florida and effective measures have been developed for its control. Many counties and municipalities now have rabies control laws which have aided materially in reducing the incidence of this disease to a very low level in domestic animals. In recent years rabies in Florida has become evident in wild animals such as the raccoon, fox, bat, squirrel, and skunk. Control of such free-living animals is an unsolved problem. Certain of them are known to attack domestic animals, thus spreading the disease so that it becomes more readily transmissible to man. The first case of bat rabies in the United States was diagnosed in Hillsborough County in 1953. Extensive studies of wildlife rabies were made by the di-

vision biologist during 1954-63. The last human death from rabies in Florida was reported in 1947.

Dogs and cats, through hookworm-infested feces, are responsible for many cases of creeping eruption in humans, most of them children and persons whose work takes them over infected ground. This condition is widespread in Florida and there is little hope that it will be eradicated in the immediate future. Continuous education of the susceptible population has brought some relief.

Salmonellosis, spread in most instances from animal or fowl, is under constant surveillance. Efforts are being made to control rendering plant operations to prevent transmission of infection through foods for animals processed by these rendering plants.

Equine encephalitis has become prominent and signals a threat to man. The transmitting mosquito is under surveillance. The public health veterinarian is a partner in the encephalitis investigations.

## TUBERCULOSIS CONTROL

TUBERCULOSIS was a worldwide scourge at the time the Florida State Board of Health was established. Statistics on its prevalence in Florida are not available, but elsewhere in the nation death rates of 200 per 100,000 population were reported at the turn of the century. The State Health Officer, Dr. Porter, recognized the importance of the disease even as he battled yellow fever, dengue, smallpox, and other epidemic diseases. His annual reports to the Board of Health and the Governor from 1900 to 1904 were heavily weighted with information on the tuberculosis problem and with recommendations for improvement.

One of Dr. Porter's contemporaries said that he was like a dog with a bone, he never let up once a problem was identified. Dr. Porter saw tuberculosis as a problem, not only of the public health, but also of the economy of the state. He recommended sanatoriums for care of the tuberculous, pointing out that many invalids came to Florida to escape rigorous northern winters only to be refused lodging in hotels and rooming houses. His constant pleas for accommodations for these patients triggered the building of small hospitals by philanthropic organizations, private enterprise, and state and local organizations. Some of these hospitals did not enjoy a long life. The State Board of Health built "isolation hospitals" in Duval and Dade Counties and in the cities of Pensacola and Tampa. It was said Florida was the only State owning and operating such facilities. Boarding homes began providing for tuberculosis patients under a variety of conditions. In 1905, Dr. Porter advocated a large State institution for the care of infectious patients and the State Board of Health set aside \$60,000 for that purpose. Difficulties over location and other problems caused delay and in 1909 the Legislature diverted the fund to payment of pensions.

The Sixth International Congress on Tuberculosis was held in Washington, D. C., September 28 to October 5, 1908, with Dr. Porter and Dr. Daniel among the 28 in attendance from Florida. Organized antituberculosis work in Florida began some two months after this congress. The first voluntary health organization was to have been a statewide agency but in view of distances in Florida it soon became a local organization. In March 1909 a "Florida Campaign Committee" began to further Dr. Porter's desire for a State institution for tuberculosis patients and to explain the nature and danger of the disease. To the Woman's Club of Jacksonville goes



much credit for antituberculosis work. Members personally paid for leaflets which they delivered through the poorer sections of the city. The Florida Antituberculosis Association came into existence in March 1916.

A program of clinics was planned and carried into operation in 1920 by the renamed Florida Tuberculosis and Health Association, the Florida Federation of Women's Clubs, and the State Board of Health. Three nurses were employed to visit communities and organize clinics. Private physicians contributed their services and local tuberculosis associations arranged for office and clinic space. Clinics were held in schools, court rooms, women's clubs, and American Legion halls. X-ray services were not available, and physicians serving the clinics attempted to make a diagnosis on the basis of physical examination. Only about 12 patients could be seen in one day. There was some local resistance to the clinics. Native pride brought forth public assertions as to the absence of tuberculosis in local communities. Facts and figures contradicted these statements, and public relations sometimes were strained. However, clinics continued for several years, and it is recorded that in 1933 a clinic physician found 101 cases of tuberculosis in 1,283 patients examined.

Dr. Porter was vigorous in his denunciation of persons who expectorated in public places and argued that doing so endangered the lives of little children. His protests resulted in ordinances in many cities making expectoration in public places a subject for arrest and fine. Flamboyant and gruesome posters were a part of this educational program. Some vivid descriptions by the State Health Officer tells of unsanitary conditions found throughout the State. He brought cuspidors into public buildings and ordered arrest and fine for failure to use them with dexterity.

During this period there was agitation for facilities to isolate patients and "suppress tuberculosis." Patients were cared for in old isolation hospitals, some of which had been remodeled, or in pavilions in county homes. In Duval County patients were housed in a wing of a dilapidated and overcrowded hospital. In 1920 results of a referendum approved funds for a Duval County tuberculosis hospital but as the building neared completion the 1923 Legislature passed a special act converting it to a general county hospital which eventually grew into the Duval Medical Center.

In rural areas some patients were isolated in "Burr Cottages," one-roomed screened structures having lift-up sides. These were usually located in the backyards of the patient's home and, when used as intended, provided the isolation recommended. However, in one instance a visiting nurse found all of the patient's children locked in the cottage while the mother-patient was rocking on the front porch. She had been advised to rest and this, she said, was her method of relaxation. In another instance the nurse found heavy



*Isolation of infectious tuberculosis patients in 1920's and 30's was often in a portable "Burr Cottage" placed in rear of patient's home (above). Mobile X-ray units (below) traveled the state to provide chest examinations for community groups. When shadows in small films were suspicious of tuberculosis or other chest abnormality, patients were referred to their private physician or health department for further study.*



smoke exuding from cracks around the cottage windows, which were tightly closed. She feared for the patient, only to find he had died some days previously and, since his death the cottage had been converted to a smokehouse.

In 1927 the Legislature created the State Tuberculosis Board which was given authority to study the problem, select sites, build hospitals, and develop programs for treatment of tuberculosis. Weary of waiting, Escambia County in 1934 converted its old isolation hospital into a 22-bed tuberculosis hospital. It was not until February 1938 that the first State tuberculosis hospital near Orlando, known as the Central Florida Tuberculosis Hospital, received its first patient. The State Tuberculosis Board appointed by the Governor was composed of W. T. Edwards, a Jacksonville business man; J. Maxey Dell, M.D., of Gainesville; and Mrs. Murray L. Stanley, Daytona Beach, a former president of the Florida Federation of Women's Clubs and at that time president of the Florida Tuberculosis and Health Association.

Short courses in medical care of tuberculosis patients were developed. To one designed for Negro physicians, the Julius Rosenwald Fund contributed generously. Pneumothorax was the popular treatment of the day and few physicians had experience in this method. Miami was selected as the site for the training. Local tuberculosis specialists were leaders in giving instruction. In addition to pneumothorax some simple surgical procedures were being done in Miami, probably the earliest chest surgery for tuberculosis in the southeast. Desperate for space, physicians installed their patients in the greenhouse of Jackson Memorial Hospital. As patients moved in, the flowers moved out.

In 1932 a fulltime tuberculosis clinician and a nurse were employed by the State Board of Health and four years later the Division of Tuberculosis was established. The first X-ray unit was obtained in 1936; it consisted of a unit that could be dismantled and moved from clinic to clinic. Exposures were made on rolls of paper film which had to be sent to New York for processing. The first mobile photofluorographic X-ray unit was a 35 mm unit obtained in 1940. The trailer which housed this unit was designed and built by personnel of the State Board of Health largely with funds from the Florida Tuberculosis and Health Association. It was not until after World War II that additional and better mobile units were obtained.

The Central Florida Tuberculosis Hospital operated at capacity, but with better detection methods the number of known active cases of tuberculosis living at home increased. By 1950 there were 3,541 active cases waiting for hospital beds. Old service hospitals were put into use as temporary hospitals while the Tuberculosis Board planned and built three additional hospitals. The Southeast Florida

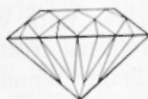
Tuberculosis Hospital in Lantana, with 400 beds, accepted its first patients in 1950. Southwest Florida Tuberculosis Hospital in Tampa was opened in 1951 and the third hospital in Tallahassee, which the Legislature named for W. T. Edwards in 1952. By the time these three hospitals were built, drugs had become available which were very effective in treatment of tuberculosis and the entire concept of medical care of the tuberculosis was revolutionized. The four hospitals were operated until 1959 when the Orlando unit was released to another state agency.

After World War II, Dr. C. M. Sharp came to the State Board of Health as director of its tuberculosis control program. Case detection was expanded with six modern mobile photo fluorographic units. By 1957 over half a million persons per year were being X-rayed in these units. Later, X-ray survey programs were changed from mass screening procedures to programs aimed at areas of high tuberculosis incidence. Today, in an effort to prevent infection of the young, emphasis is placed on detection studies among persons who are likely to infect children. Identification of recently infected persons and of those at high risk is attempted; these are given chemotherapy as a prophylactic measure to prevent future disease.

The annual death rate was long considered the standard by which tuberculosis control programs were measured. The death rate in Florida reached a low of 4.0 per 100,000 in 1962, with a national rate of 5.1. This low rate and a better response to treatment has resulted in public apathy and complacency. Compared with previous years, the rate of decline in numbers of new cases has decreased; in the United States in 1963 the number of new cases and the case rate actually exceeded the 1962 figures. Many health officers have shown concern, and the Surgeon General of the U. S. Public Health Service appointed a Task Force which studied the problem and has made recommendations to improve the situation. Many of these have been adopted by the State Board of Health. Control of tuberculosis continues to be a major public health problem and may be expected to continue so for many years.

Change in the tuberculosis picture has been great over the past 75 years. An annual death rate of some 200 or more per 100,000 persons existed when the State Board of Health was established; today the rate is four. There is an even greater contrast in the median age of deaths. Today it is 63 years, while 75 years ago it was in the late teens or early twenties. Prior to the diagnostic use of X-rays when tuberculosis was advanced far enough to be diagnosed by symptoms and physical examinations, death was to be expected in a matter of months or a few years, and most patients remained invalids until death. Today a full restoration to health is the rule, with little or no restriction of activity, and there is only minimal shortening of the life span. But with all of this marked

change, tuberculosis is still a social and financial catastrophe for those who fall victim to it. The eradication of tuberculosis is far in the future.





## VENEREAL DISEASE CONTROL

THE FIRST mention of venereal disease since the State Board of Health had its beginning in 1889 was in a 1907 issue of *Florida Health Notes*. Dr. Porter, usually willing to speak on any health topic, refrained from comment on the venereal diseases. The article stood on its own and alone.

Some statistics on syphilis are found in reports between 1891 and 1916. However, they were from a few of the more populous counties and larger cities. Morbidity on venereal diseases was not reported systematically during this period.

In 1916, with a mushrooming population, records on venereal diseases brought them into public health prominence. At that time rates were high as compared with those of other states and municipalities. The death rate from syphilis in Florida cities was 18.7 per 100,000 population in 1914, as compared with 7.9 for the Registration Area. This, and the fact that syphilis caused more deaths than malaria or diphtheria, prompted some educational activity by district health officers. With World War I raging in Europe, Florida was having problems created by heavy military concentrations throughout the State. Simultaneously the State Board of Health was experiencing budgetary cuts and the loss of experienced personnel.

The Bureau of Venereal Diseases was created in 1918 with the assistance of funds appropriated by the Congress. An educational program was initiated for civic organizations, ministerial associations, and medical groups. The Surgeon General of the U.S. Public Health Service urged education be on the same basis as for any other communicable disease, and "thus avoid offense to modesty." Epidemiological activity was confined to casefinding in captive groups such as State and local prisons. Established venereal disease clinics were operating in Pensacola, Key West, Gainesville, and Jacksonville. Between 1918 and 1920 additional clinics were established in Tampa, Arcadia, and Miami. Neoarsphenamine for the treatment of syphilis was furnished by the State Board of Health to private physicians and district health officers.

In its annual report for 1920, the State Board of Health revealed that more cases of venereal disease were reported by physicians that year than the total of the next three causes of sickness. The venereal disease program was consolidated with the Bureau of Communicable Diseases in 1921, and little is known of control

programs during the next decade when funds were scarce and published reports at a minimum.

In 1938 when the build-up of World War II brought forth additional Federal funds, a Division of Venereal Disease began to function in the State Board of Health with financial assistance of the U. S. Public Health Service. By this time Florida had approximately 150 military establishments. The large number of personnel in these necessitated aggressive educational, casefinding, and treatment programs for venereal disease.

In 1940 Dr. Wilson T. Sowder, later to become State Health Officer, arrived in Pensacola. The Secretary of the Navy had made known his concern about the venereal disease problem existing in that city which had one of the oldest red-light districts in the country. Failing to secure support to close the houses of prostitution, Dr. Sowder used his authority to placard them with signs saying, "Syphilis, Keep Out," or "Gonorrhea, Keep Out." It worked. The red-light district closed and the disease rate dropped by half the following month. Over the next five years most of the red-light districts throughout Florida were eliminated. Dr. Sowder served as director of the Division of Venereal Disease Control during 1941-43. It was in this period that the Governor issued a proclamation designating January 1943 as "VD Control Month." A crash education program was carried on, with assistance from the Florida Medical Association, the State Department of Education, the State Defense Council, and other local agencies and groups.

The Venereal Disease Control Division purchased and distributed all drugs to be supplied to clinics and private physicians treating indigent patients. Rapid Treatment Centers were operated between 1943 and 1952 for treatment of patients on an inservice basis. Laboratories were enlarged and improved. Intensive educational programs were arranged for Negro leaders due to the high venereal disease rate among that segment of the population. In spite of these concerted efforts, Florida continued to crowd the top of the list of states, when not leading it, with syphilis rate of 158.6 per 1,000 men examined. The rate for the nation was 45 per 1,000. During 1941-50 the rate continued to rise. Florida had one of the highest venereal disease rates in the country during this period. In 1945 the Legislature passed premarital and prenatal laws which were added casefinding tools.

With introduction of penicillin, which became available to venereal disease clinics in 1946, treatment of syphilis and gonorrhea was revolutionized. With the increasing ease and effectiveness of treatment, less emphasis was placed on venereal disease control between 1952 and 1959. A sudden rise in case rates was noted in late 1959 and the upward trend has continued through 1964.

Again, the U. S. Public Health Service gave financial assistance

when an intensive casefinding, diagnosis, treatment, and educational program was begun in 1960. Lack of education, breakdown of moral standards, promiscuity among teenagers, and general public apathy are factors mentioned as responsible for the rise in venereal disease rates. The increase has occurred in all age groups in both sexes, and in the white as well as the nonwhite population. The most significant rise was in the age group 15-34 years. A large number of cases among homosexuals have been reported.

With persisting high rates, the U. S. Public Health Service has cooperated with the Florida State Board of Health in a cluster-testing pilot study. Essentially, this has involved complete epidemiological exploitation of every case of infectious syphilis. Interviews are conducted regarding sex contacts of each infected person and suspect, the inquiry extending to acquaintances and associates. Those named are brought in for examination. But still the case rate has continued to increase, indicating that present-day control measures will not eradicate syphilis, that penicillin alone cannot control venereal diseases.

Current venereal disease control depends upon close cooperation between public health department and private physicians. Approximately one-half of all syphilis cases reported in Florida during the past 15 years have been reported by private physicians. Florida is working toward an expanded program which emphasizes the interrelationship between private practitioners and the well organized Venereal Disease Control Program, and the need for concerted action by the local community.

## EPIDEMIOLOGY

THE EARLY HISTORY of the Florida State Board of Health is a story of public health problems which demanded epidemiologic study. The Board was established to prevent recurring epidemics of yellow fever. Through the years a succession of advances in epidemiologic knowledge has led to marked changes in public health practices and in public attitudes toward control of communicable diseases.

Concerning yellow fever, there were highly creditable early epidemiologic observations. At a port with endemic or epidemic infection, susceptibles could move throughout the day with little or no risk of acquiring the disease, but the same action in other than daylight was attended by grave risks of contracting the fever. There was the conviction also that fumigation of a vessel and its cargo was effective in reducing the danger of introducing the disease. Even though these early impressions were consistent with an infection transmitted by a specific species of mosquito, still the public and professional reaction to the new knowledge concerning insect transmission was one of hesitancy and disbelief. It was a revolutionary concept. Doubters were very vocal in the Pensacola yellow fever epidemic of 1905, four years following the scientific demonstration in Havana that control of mosquitoes does eradicate yellow fever. Personal experience was required to convince some physicians and the Florida public as to the accuracy of this conclusion.

Elsewhere in this volume, reaction to the changing knowledge of diphtheria was reported. Antitoxin was eagerly accepted. Immunizing inoculations aroused no opposition. But the culturing of healthy persons for diphtheria organisms and the quarantining of other than sick persons for control of this disease at first was considered beyond reason, even by an able assistant to the State Health Officer! In these modern days in Florida and elsewhere, there is still hesitancy in accepting revolutionary concepts as illustrated by the wide public and professional resistance to the epidemiologic observations on the relationship of cigarette smoking and lung cancer.

Florida shared with other Southeastern States the massive problems of malaria and hookworm and the search for more effective control measures. Pellagra and endemic typhus were problems peculiar to the area and were studied epidemiologically in these states. Typhoid fever presented a hazard to the seafood industry as well as to health. The presence of plague with 10 cases and six deaths presented a terrifying threat to Pensacola in 1920. In recent years

the tuberculosis-like disease due to atypical mycobacteria has been found to be particularly prevalent in Florida and Georgia, and is one of the subjects receiving extended epidemiologic study by the State Board of Health.

Currently the virus diseases and particularly encephalitis are receiving concentrated attention. The impressive observation today is the number of clinical cases of encephalitis with "etiology undetermined." There is the accumulating evidence that viruses may have a role in leukemia and possibly in other cancerous diseases. Chronic diseases, with their multiple causes, challenge epidemiologists to evolve appropriate methods of study and effective procedures for control. There have been and there still are urgent epidemiological problems of concern to the State Board of Health.

While the epidemic investigations during these 75 years provided a succession of substantial, even revolutionary findings, there is a history also of anti-epidemic action. There was the evolution of malaria, endemic typhus, and pellagra control which became so effective that eradication was obtained. The ever-present risk of a typhoid epidemic has been so reduced that a single case is now the focus of an intensive investigation and a subject for public comment. The antismallpox campaign begun by Dr. Porter eventually attained success leaving only the threat of reintroduction.

Today much attention is directed to the venereal diseases. The increasing incidence in the face of increasing public health action is a humbling situation. This is true also of the lack of universal use of established immunization procedures. One of the newest of the epidemiologic activities in the State Board of Health is a vigorous campaign for the immunization of all young infants. That there is a hard-to-reach segment of the population is very apparent and it is a current task shared by epidemiology to find a successful method of getting the benefits of public health to this particular group.

Epidemiology was recognized as a specialty in the Florida State Board of Health in 1937 with creation of a Bureau of Epidemiology. Later, in 1945, it became a Division within the Bureau of Preventable Diseases where it remains today.



## SERVICES TO CRIPPLED CHILDREN

**A**S EARLY as 1906 the Legislature authorized the State Board of Health to construct a hospital for indigent crippled children. No funds were provided and so no action could be taken. Again in 1911 the Legislature expressed its concern with this problem and this time funds were made available. During these years there was a standing offer of assistance by Dr. Raymond C. Turck, a surgeon interested in orthopedics, who later became State Health Officer. He volunteered his professional services if the State Board of Health would provide funds for hospitalization. By agreement with two Jacksonville hospitals, 12 beds were made available in St. Luke's Hospital for white children and 10 in Brewster Hospital for Negro children. Dr. Turck continued to serve this program until late 1916 when he joined the Armed Forces.

In 1917 there was a change of State administration and the crippled children's service was moved to Ocala. Reports speak of a crippled children's hospital built in this area and operated under the State Board of Health. Though records are incomplete, the Ocala arrangement was only temporary. The work was reinitiated in Jacksonville but had to be discontinued in 1921 for lack of funds. It was revived in 1924 with Dr. Frank Fort as its director.

Interest in a program for crippled children was not difficult to arouse. Many organizations made generous contributions. Two of these were the Florida Department of the American Legion and the Florida Federation of Women's Clubs. In 1928 the Legion undertook a survey of crippled children to ascertain the number needing treatment. The study revealed that 700 were orthopedically crippled and that an additional 300 were blind. The State Board of Health had been able to provide adequate care for only 20 to 35 cases per year. These figures prompted the 1929 Legislature to create the Crippled Children's Commission.

In the early years, tuberculosis of bone and joints and osteomyelitis were common diagnoses. Later poliomyelitis was added. Still later all of these diseases became preventable conditions and virtually disappeared. Since the creation of the Crippled Children's Commission, birth defects, particularly harelip and cleft palate, and birth injuries have received attention. From time to time other crippling

conditions, such as arthritic diseases and chronic medical ailments have been added to the program.

In 1958, the Commission began treatment of congenital heart diseases requiring surgery. As time has passed immunization has practically eliminated polio. Bone and joint infections, including tuberculosis, have been controlled by new antibiotic drugs.

In the early years, service to crippled children was under the State Board of Health and professional services were volunteered by surgeons and other physicians. Since its creation, the Crippled Children's Commission and various health agencies, including the State Board of Health and health, civic, and fraternal organizations have worked cooperatively. After many years of work as district surgeon with the Commission, Dr. Fort was selected as its Director in 1963.

## PUBLIC HEALTH NURSING

IN THE YEARS of early concern with tuberculosis, Dr. Porter saw little probability of the State building a tuberculosis sanatorium, although he had repeatedly recommended this. So he turned to an alternative. Patients would be visited in their homes and they and their families would be given appropriate instruction. For this purpose three nurses were employed in 1914. Two years later there were 13, almost the number he had originally requested. Though employed for work with the tuberculous their duties were expanded almost immediately. This service was the earliest recorded public health nursing in the State.

Dr. Porter recognized the many hardships encountered by the nurses as a result of "belated train schedules, poorly prepared food in out-of-the-way places, and uncomfortable sleeping accommodations." He marveled that in spite of all the difficulties, the nurses always found the patient, "even though it took a long walk or drive or rowboat trip to reach their destinations."

The nurses obviously were busy and productive. Their work included making a survey to determine the prevalence of tuberculosis. Contacts were made with physicians, local authorities, and influential citizens. These resulted in the organization of antituberculosis committees. These were sponsored largely by local women's clubs, which sold Christmas Seals to provide financial assistance to indigent families and to support the educational program on tuberculosis.

Later developments made this propitious beginning seem premature. There was a change of State Health Officers, there were marked budget cuts, and the new nursing service was one of the first services terminated. Then came World War I and the influenza pandemic. Nurses were demanded to care for the wounded and the gravely ill.

There was a promise of progress again in 1921. The Sheppard-Towner bill was enacted and provided some funds. On invitation by the State Board of Health and the Florida Federation of Women's Clubs, a study of conditions influencing child morbidity and mortality in the State was undertaken by the U. S. Public Health Service. The Bureau of Child Hygiene and Public Health Nursing was established. Within this Bureau there was a Division of Maternal and Infant Hygiene, with Miss Ruth Mettinger in charge for two years. Major attention was directed first to midwives. A statewide survey revealed that more than 3,000 persons who called themselves midwives were attending births in Florida. Lacking a law on licensing or



*Public health nurses work with patients of all ages, races and creeds and with many problems. At the county health department preparing for field visits, the nurse checks and refills her bag (upper left). Instruction in infant care is given to a mother as nurse prepares immunizing "shot" for baby. Nurses must visit patients in a variety of environments. Rubble and rickety stairs (left center) do not deter this one. In time of disaster, a nurse may have to don overalls and row a boat (right center). A nurse teaches a geriatric patient to use her walker (bottom right).*



reg  
"C  
wi  
for

for  
the  
reg  
mu  
era  
wh

ma  
He  
ye  
pa  
19  
M  
tic  
cer  
sta  
mi  
ye  
sel  
M

N  
ge  
Ex  
for  
ch

As  
ma  
re  
he  
ta  
gr

fu  
co  
als  
Se  
nu  
fo  
co

registration, the State Board of Health required that midwives obtain "Certificates of Fitness." About 500 midwives were reported to have withdrawn from practice as a result of the establishment and enforcement of standards.

Despite these activities, the twenties were not a favorable decade for public health nursing. In 1923 of the five public health nurses in the State Board of Health, two were giving full time to midwife registration, one to "Parent Education," and another worker in communicable disease investigations. Only one was engaged in a generalized public health nursing program. This is a sample of conditions which prevailed throughout this decade.

The multiple favorable developments of the thirties stand in marked contrast to those of the twenties. The Division of Public Health Nursing became a separate unit in 1931. Also in the same year the long requested law requiring licensure of midwives was passed. A statewide series of institutes for midwives was started in 1933. The first was in Tallahassee. The members of the Florida Medical Association aided with instruction and the Florida Federation of Women's Clubs assumed responsibility for transportation. A certified nurse midwife and other public health nurses from the staff of this new Division directed the training program for the 254 midwives from 28 counties who attended. A manual prepared many years earlier had been revised for the occasion. The midwives themselves authored a "Midwives Creed" and a song "For We are All Midwives Indeed." The nurses and midwives were enthusiastic.

In addition to these activities, the Division of Public Health Nursing developed an extensive program of education, with talks geared to parents, teachers, adolescents, and other special groups. Exhibits were prepared and motion picture showings arranged. Efforts were directed toward improving the health of mothers and their children.

A new day dawned for public health nursing in Florida in 1934. As a part of the Federal relief programs, nurses and supervisors were made available to the State Board of Health. Miss Mettinger returned to direct the program. A generalized program of public health nursing was initiated. Due to high maternal and infant mortality rates there was particular stress on prenatal and infant programs, with the provision of clinic services and home visits.

To build for permanency of the nursing program when relief funds might be withdrawn, local committees were organized to orient communities to the duties of public health nurses. These committees also assisted in obtaining equipment and supplies for clinics. Several counties were so favorably impressed with the work of the nurses that appropriations were made by the County Commissioners for continuation of their work and even for the establishment of a county health unit.



Nurses were assigned to the State Board of Health on the basis of their need for employment, and many urgently required basic education in public health nursing. Inservice training programs were scheduled. The State supervisors guided the county nurses, and nationally recognized authorities were imported to aid the supervisors.

During these years of acute economic distress, special attention was given to the observance of designated national days and weeks. Public health nursing committees took the lead in the counties, and many large celebrations were arranged. May Queens were elected, May Poles were erected, and dancing and gaiety prevailed. These celebrations were seasoned with educational programs pointing to the health needs of Florida's children. Social Hygiene Day, Negro Health Week, Mother's Day, and other specially designated occasions offered opportunities for both diversion and educational programs.

Reports of the time indicate that the duties of the nurses were increasingly varied. They taught classes of mothers, teachers, midwives, and many other groups. They served in clinics, made home visits, carried on surveys (hookworm and pellagra), served schools, checked birth registrations, and cooperated with nurses of the Crippled Children's Commission, and with other agencies.

The organization of local health units in the late thirties began to change the duties of the staff of the Division of Public Health Nursing. In order to keep the nurses abreast of scientific and other developments, more and more training was planned. The proficiency of the nurses and the caliber of service rendered progressively improved. With the first State tuberculosis hospital soon to be opened, special classes were given nurses so that patients and their families could be prepared more adequately for acceptance of institutional care. The continuing high maternal and infant death rates kept all staff members seeking new ways to persuade expectant mothers to accept prenatal care either through clinics or private physicians and to give more intelligent attention to their babies.

Prior to and during World War II, this Division persuaded many retired and married nurses to again become active, full-time if possible, but at least part-time, to teach home nursing classes and to prepare for work in disasters. In 1942 the Division became deeply involved with defense and wartime activities. The director became Chairman of the Nursing Council for War Service and State Nurse Deputy to the State Emergency Medical Officer. County deputy nurses were appointed. Councils were established for recruitment of student nurses and the enrollment of nurses for the American Red Cross.

Venereal diseases and tuberculosis were wartime problems. Clinics were enlarged to assist in both programs and staff education was emphasized to assist local health departments in working with pa-

tients and their families. There was also a Federal-State program to provide hospitalization for the families of service men, and this demanded nursing assistance. Through the active efforts of the director of the Division of Public Health Nursing, the first Visiting Nurse Association in Florida was established in Duval County in 1943.

As the years moved along, educational opportunities for public health nurses increased. Colleges and universities provided graduate work or specialized institutes or courses. Voluntary health agencies, many of which developed following the war, offered scholarships in their special area of interest. A varied program of training was provided within the State, usually under the direction of the Division of Public Health Nursing. More nurse-training institutions in this and other states requested field experience for their students. This training was arranged by the Division and provided through the cooperation of local health departments. By 1951 there were approximately 400 public health nurses in Florida, either employed by official or voluntary health organizations.

The evolution of public health nursing in recent years has been in response to the needs of the aging and those with chronic illness. The improvement of quality of care in nursing homes has been one objective. In this activity nurses have served on county inspection teams and have had a leading role in the group instruction of nursing home administrators and personnel. There was need also for rehabilitative nursing care, both in and out of institutions. A nurse consultant trained in this specialty has aided in introducing county health department nurses to this new activity.

It was in their own homes that the aging and those with chronic illness showed the greatest need for an expansion of community home nursing care. Short visits by a nurse at intervals frequently made it possible for the aged or disabled to remain at home, thus avoiding considerable expense to the family or the State for unwanted hospitalization. Home nursing care of the type indicated was being provided by Visiting Nurse Associations, but these organizations were found only in urban centers. In a few localities these Associations were independent voluntary health agencies; in others they operated either in association with or as part of the public health nursing program. The latter was actively promoted by the director of public Health Nursing, particularly since this alone was a practicable approach to meeting the total home nursing needs of rural counties. This "Combination Nursing Service," is usually sponsored by a Public Health Nursing Advisory Committee. Fees are collected for bedside nursing care, the amount scaled to the family's ability to pay, and through these fees and other community contributions the Advisory Committee aids in the support of this extension of community nursing care. In a fully combined program all nurses provide

both the public health preventive nursing services and the indicated bedside care. Currently, 37 counties have established the combination program and nursing care of the sick at home is now available to 80 per cent of the population of Florida. The community response has been very favorable. This type nursing service is regarded as the community nursing service of the future.

As the 75th anniversary of the creation of the Florida State Board of Health is observed, 654 public health nurses are employed on the staffs of the State Board of Health and county health departments; 63 work with Visiting Nurse Associations and 22 with the Crippled Children's Commission.



## MATERNAL AND CHILD HEALTH

**A**S A PART of the general population, mothers and children have been beneficiaries of public health since the organization of the State Board of Health. Epidemic prevention and malaria control, for example, were of high significance to persons of all ages. Concern with hookworm disease and its control reflected increasing attention to the needs of children. The provision of antitoxin for the treatment of diphtheria and "shots" for its prevention were highly important in child health work. In 1915 the State Legislature passed an act calling for medical inspection of all school children. However, as the State Health Officer said, "This work of school inspection is exceedingly important and the Board is in hearty sympathy with the spirit and intent of the law but it deplores the fact that adequate financial provision was not made for properly putting it into effect." Later development of public health nursing and establishment of county health units were of major importance to maternal and child health. In addition to these general measures, special efforts were supported by categorical appropriations (chiefly through the Children's Bureau) which encouraged development of specific programs for protection and promotion of the health of mothers and children. This section will deal only with these special efforts.

Maternal and child health as a distinctive component of public health was acknowledged in late 1918 with the establishment of a Bureau of Child Welfare. This was fostered by the Florida Federation of Women's Clubs. A prominent member of this organization and a practicing pediatrician, Dr. Grace Whitford, directed this Bureau for a limited time. Its goal was to register and provide educational material to expectant mothers and to encourage the construction of small maternity hospitals or separate maternity wards in larger institutions. Preschool clinics were to be developed and infant welfare stations established. (Milk depots to distribute milk to indigent families were operated in connection with the infant welfare stations in Tampa and Jacksonville through funds provided by local women's clubs.) Home visitation was planned and initiated with the aid of volunteers. The examination of school children was a major objective. Despite obvious needs and the support given by the Board of

Health and the women's clubs, funds for this work were cut off as a result of the drastic reduction in the Board's budget.

After an interval of only a few months, maternal and child health work was revived through the passage in 1921 of the Sheppard-Towner Act. This act provided \$5,000 each year to those states appropriating an equal amount of matching funds for this specific program. With this modest support, district nurses were employed to initiate programs. In addition to the education of mothers and expectant mothers, substantial attention was directed to training of midwives. This developed as an essential part of public health nursing activities and is described with that program. In the decade of 1922-32, there were limited funds for maternal and child health activities. Nurses served areas as large as one-third of the State, though later with an increase in the number of nurses, the size of the areas served was decreased. With the shortage of personnel and the obstacle of distance, the Bureau of Child Welfare originated unique ideas for getting its message to expectant mothers. Letter series were prepared, one for those planning to have a physician in attendance and a modified one for those expecting to use a midwife. There was also a postnatal set of letters and all were sent with instructive enclosures. During 1930 some 800 mothers were enrolled for the maternity letter service. Reports for this decade are sketchy but indicate a gradual shift toward general public health nursing. In 1918 the Bureau of Child Welfare was established; in 1926 it became the Bureau of Child Welfare and Public Health Nursing; in 1932 it was renamed the Division of Public Health Nursing, which more accurately described its functions at that time.

Passage of the Federal Social Security Act in 1935 marked the beginning of a greatly expanded maternal and child health program. The Bureau of Maternal and Child Health was established in 1936 and has continued since that time. Its budget has been derived through allocations from the Children's Bureau. A broad program of activities has been gradually developed.

Education has been a most important facet of the Bureau's effort. Procedures have varied with the times. Motion pictures on a variety of subjects were used when "movies" were not generally available. "Neighborhood Institutes" brought together small groups for intimate discussion and instruction. Through the years numerous training sessions have been held, many of which were for midwives.

This Bureau, together with the State Department of Education, has responsibility for the school health program. Except for early years when there was uncertainty as to relative responsibilities, this program was evolved as a uniquely effective, cooperative effort. The Bureau, working with representatives of the State Department of Education and voluntary health agencies, prepared a bulletin during the summer of 1939 which has guided this program through the





*In 1931 students lined up to be weighed and measured as part of their health program. Help from the participants was a part of their education. A mother (lower left) looks on as a public health nurse at the health department tests her infant for mental retardation (Phenylketonuria). The young patient (lower right) voices a protest at the immunization clinic.*



years. Bulletin 4-D "A Guide—Health Programs in Florida Schools," has been reviewed, revised, and reprinted but continues as one of Florida's most important guides to the health instruction, health service, and the environmental health of school children.

During World War II, an emergency program to assure medical and hospital care for dependents of fathers in the lower pay grades of the armed services, was created. Funds came from the Children's Bureau. A State plan for hospital care was developed, the first experience of the State Board of Health in this administrative area. In a very short time a complex program involving hospitals, physicians, and patients was activated. Operation of this large emergency program left little time for other maternal and child health activities.

Post-World War II development is a history of projects. There are the postgraduate education programs; the annual Obstetric-Pediatric Seminar for physicians, nurses, and public health workers in Florida, Georgia, South Carolina, Alabama, and more recently Mississippi, has become a well established activity. Approximately 500 register annually for this training. This seminar is illustrative of the nature of short intensive training programs.

A teacher training project is an entirely different type of educational activity. Such a project was established in 1955, through co-operation of the Division of Health Education, six universities, the county health departments and local health groups, the Bureau of Maternal and Child Health, and the State Department of Education. Teachers who elect this course register for credit at the university of their choice. The initial two days are for instruction and orientation at the university. Then, for approximately two and one-half weeks the teachers are attached to the staff of a county health department, preferably that of their home county. Here they participate in home visits and clinics, making inspection trips with sanitarians and sharing in formal and informal discussions within the department. The course concludes at the university with a discussion and evaluation of the experiences.

Three major projects have been undertaken. With a grant from the Children's Bureau, a Premature Demonstration Center was established in Jackson Memorial Hospital, Miami, in 1950. Its objective was to help to reduce the high infant death rate, to which deaths of premature infants contribute substantially. At that time Florida rated forty-third among the States in infant deaths. The Demonstration Center was to provide hospitalization for premature babies of the area and to serve as a training center for physicians and nurses from Florida, Alabama, Georgia, and South Carolina. During the initial 10-year period of operation, over 2,000 premature infants were cared for in the Center. As the program developed, greater emphasis was given to training. With the cooperation of staff members of the Center and the Department of Pediatrics, University

of Miami School of Medicine, a series of regional one-day "crossroad clinics" was carried out. These made the benefits of the experiences in the Center available to the State's nurses and physicians. The Bureau of Maternal and Child Health also arranged for selected physician-nurse teams to obtain training at the New York Hospital-Cornell Medical Center. Those so trained have given leadership in improving the care of premature babies. Also, incubators, Isolettes and other equipment for the care of premature infants were permanently loaned by the Bureau to health departments and hospitals.

Faced with an estimated 3,500 mentally retarded children born each year in Florida (and increasing with population growth), the State Board of Health through this Bureau critically considered the complex needs. One answer was establishment of a Developmental Evaluation Clinic. As one of several sponsored by the Children's Bureau, this clinic makes detailed evaluation studies of a limited number of retarded preschool children. Its major objective is to attain a better understanding of the problems and to evolve more effective procedures in meeting them. There is individual and group instruction of parents. Of even greater importance, the Developmental Evaluation Clinic has been a source of professional training for many disciplines involved in planning for the mentally retarded. A related approach has been carried out by a public health nurse working in cooperation with the Sunland Training Center in Gainesville. The major purpose has been to foster understanding of the problem particularly by public health nurses. These staff workers are then able to assist more effectively with situations encountered in the homes, clinics, or schools.

Also with cooperation of the Bureau of Laboratories, substantial attention has been directed to examination of newborn infants for evidence of phenylketonuria (PKU) and related metabolic disorders. These diseases occur rarely—only one in more than 10,000 births. Still, early detection can make the difference between a normal child and adult and a lifelong dependent, mentally defective person.

Since 1954 there has been increasing concern for mothers and children in families of migrant agricultural laborers. Again with budgetary support from the Children's Bureau, a project to make health services more readily available to migrants has been conducted, primarily in Palm Beach County, though extending also to other south Florida counties which employ substantial numbers of these seasonal workers. The major purpose of the project has been to determine how medical and health services could be more effectively delivered to these needy and indigent families. Though much has been learned and services have been improved, it is recognized that problems of major proportion still remain to be solved.

There have been marked changes in the health of mothers and infants in less than five decades during which there have been

organized maternal and child health programs. Fifty years ago, maternal and infant clinics were a rarity, now they are a part of almost every organized health unit. The hazards of being born and of growing up have been reduced progressively. Health care for mothers and children stand as an outstanding example of progress in public health.

The midwife training and licensure program is a coordinated one. Its implementation is executed jointly through the Division of Public Health Nursing, the State Health Officer and county health officers. The certified nurse-midwife in charge of training works in close association with other nurse consultants, and nurses in county health departments.

From several thousand midwives practicing in Florida at the turn of the century, the number dropped to approximately 200 in 1964. All are licensed. An innovation in the training program was begun recently. Local physicians in a county are queried on the need for a midwife in the area. If one is needed, a careful recruitment program is carried on for selection of the individual. A maternity home in Sanford provides three weeks of observation and some practical experience for trainees. The operator of the facility is particularly interested in the care of premature infants and on occasion receives patients as transfers from local hospitals. Physicians with whom she works agree on the efficiency and careful management of the home. This Bureau finances the training.

## SERVING FLORIDA'S INDIANS

MOST of Florida's 1,200 Seminole and Miccosukee Indians live on four reservations: Brighton, Big Cypress, Dania, and Forty Mile Bend. County health departments in Dade, Broward, Highlands, Glades, and Hendry Counties, plus doctors who are under contract with the Federal Government, take care of the Indians' health needs. However, in Glades and Hendry Counties, in which Brighton and Big Cypress Reservations are located, clinics and other services are taken to the Indians.

Since early in the century, church groups have maintained medical and spiritual missions to the Seminoles. In the early days a medical missionary was in charge but as health services grew, physicians, nurses, sanitarians, and other types of workers have been assigned to work with the Indians. The Federal government has contributed to work throughout the years.

Dr. E. W. Diggett, an assistant health officer, was sent in 1914 by the State Board of Health on a special assignment to the Everglades. The trip from Fort Myers to the mission post took approximately three days. The Seminoles greeted him cordially, and those in authority brought in tribe members for hookworm, malaria, and other tests. Hookworm was prevalent but was reported to cause adults little difficulty. Children, however, showed the usual signs of the disease. Treatment was given and an educational program was initiated through tribal leaders, some of whom spoke English quite well. They seemed to understand, but reports from similar tests today reveal the same problems, possibly to a lesser degree, still plaguing the Indians.

Descendants of the leaders of those days now avail themselves of the services provided since 1960 by county health departments under contract with the U. S. Public Health Service. Included in the services are immunizations, maternal and child health services, hospitalization, braces, and prescription drugs which the clinics do not stock.

Getting the squaws to submit to chest X-rays was not easy a few years ago. They are fond of bright colored beads and wear mounds of them around their throats and, it is said, seldom remove them. Persuasion from tribal authorities resulted in submission, and snapshots from the period (but not available for publication) show piles of beads along the roadside and squaws in line for chest X-rays. At one time tuberculosis was rare among Florida's Indians but in recent years five cases of tuberculosis were diagnosed



by private physicians. An X-ray screening survey at Big Cypress turned up suspicious cases which needed further study.

The Division of Health Education, with county health department personnel in Glades and Hendry Counties and a herpetologist from the Ross Allen Reptile Institute, developed a snake bite program in 1962. More recently, a firearm safety course was given to the Indians. These courses were openings through which, it was hoped, such practices as sanitation could be improved.



## NUTRITION

THE FIRST recognition of nutrition problems in Florida occurred in 1909 when the State Health Officer said, "Pellagra has attracted a great deal of attention during the last two or three years. Whether it is a disease that has existed in Florida for a long time and has been only recently recognized, or whether it has newly come into existence here, is a matter upon which there is room for legitimate difference of opinion. But at any rate, it is believed that although it might have been here a long time, it has recently increased to alarming proportions."

Though precise etiology still had not been determined, it was accepted in 1914 that the disease was of dietary origin. Health authorities related some of the increase to the financial depression which caused "a lack of proteins in rations." Then too, there was a general crop failure in addition to the depression. Education, Dr. Porter said, was lacking "for many in good circumstances were eating only a limited diet." He began to meet this situation by instructing public health physicians and nurses to include dietary information in their conferences, talks, and face-to-face contacts.

Particular attention in 1915 was given to pellagra. By a mail survey of physicians, Dr. Porter received reports on 502 active cases, which, in view of the incomplete returns, he judged to be less than half of those actually occurring in the State. At that time pellagra was a relatively common cause of death exceeded only by the cardiovascular renal diseases, cancer and tuberculosis. As a result of survey returns, the State Board of Health undertook aggressive measures aimed at diet improvement. This or some other unknown factor brought a sharp decline in deaths from pellagra—from 41.1 per 100,000 in 1915 to 22.6 in 1916. And so it was that this disease, virtually unknown in Florida today, pushed the State's nutrition program into action.

With a decline in the prevalence of pellagra, there followed an interval of limited attention to nutrition. It was recognized that many children were malnourished and anemic, but this was attributed to malaria and hookworm. Public health activity focused on these diseases. Specific efforts to improve nutrition were revived in 1941 primarily through educational programs in the area of maternal and child health.

Anemia and its supposed cause, hookworm disease, was a primary factor in the organization in 1946 of the Department of Nutrition Investigations and Services within the State Board of Health. Florida

was the first State in the country to organize such a service. Its primary purpose was investigation, but education, demonstrations, and consultation services were included. It was hoped that causes of anemia could be discovered so that suitable treatment could be established. State funds for the new project were supplemented by grants from pharmaceutical companies and national foundations. More than 2,000 children were tested in seven counties. The pioneer project created wide interest throughout this country and elsewhere. Many visitors came to study methods, findings, and the treatments recommended. Schools often introduced programs of supplementary feedings which resulted in improved hemoglobin levels. Milk, "pot liquor" (liquid in which vegetables or greens are cooked) and citrus fruits were among the foods stressed. Action followed slowly in the wake of knowledge.

For a period one mobile field unit served as a base from which to study anemia and as a screening unit for diabetes. One blood specimen was used for both. From 1950 to 1958 Nutrition and Diabetes Control were combined in a Division. Since that time the Division of Nutrition has been a part of the Bureau of Local Health Services.

At present nutrition consultation service is accessible throughout Florida. Efforts are made to reach those in every age group and every economic level. Attention is given to nursing homes to improve feeding plans for the aged; to school health programs to increase nutrition education activities; to clinics for mothers and children; to community groups interested in weight control; to teenagers who are one of our most poorly fed groups; and to migrant agricultural workers. Assistance is provided to institutions without a dietician, such as nursing homes. Also, a rural demonstration project was placed in operation to explore, study, and plan nutrition services to meet the needs of a rural population.

With growing interest in nutrition in Florida, a number of special programs, primarily educational, are being offered. Good family nutrition receives emphasis including food budget planning. Many requests for diet information are received from the general public. Understanding of the importance of nutrition to health and to prolongation of life has attained a new high, but much remains to be done. It should be remembered that early teaching of nutrition was sponsored actively by home and farm agents and special home economic teachers in the schools.

## NARCOTICS

THE DIVISION of Drug Inspection, a forerunner to the present Bureau of Narcotics, came into being through an act of the State Legislature in 1927. It is reported that the inspection service was of great assistance to the drug trade, raising standards of pharmacy and insuring that the drug demanded by prescription was the drug delivered. The State Board of Health was the licensing agent for drugstores, then and now.

The same Legislature provided for registration of all individuals practicing the healing arts. Later, in 1955, this law was amended to require background information on each registrant. Registers became the responsibility of this Bureau. In 1955, those registered numbered 6,429, including doctors of medicine, osteopaths, chiropractors, naturopaths, chiropractists, and physical therapists. Doctors of medicine are also required to register annually with the State Board of Medical Examiners but receive their license to prescribe narcotics from the U. S. Treasury Department.

The Uniform Narcotics Drug Act was passed in 1933, with its enforcement assigned to this Bureau. During that year considerable work was done toward control of the selling and use of marijuana. Both were becoming increasing problems. There were 28 prosecutions with 26 convictions, a record for the year. Within two years, according to the U. S. Commissioner of Narcotics, "the fine work in Florida had driven peddlers to ply their trade in other States." In 1941 the Division of Drug Inspection became the Bureau of Narcotics and entered into even more activities.

In addition to inspection and enforcement, the Bureau carries on an aggressive educational campaign with adults and through the schools. All media have been utilized, with emphasis on the dangers of drug addiction. With the rapidly increasing population in Florida and its more complex social structure, use of barbiturates, amphetamines, and similar drugs has expanded responsibilities of the Bureau. Inspection of drugs, devices, and cosmetics, as outlined in the U. S. Food and Drug Act, has also been made a duty of the Bureau.

Working with Bureau staff members are police, sheriffs, and agents of other law enforcement agencies.

## DENTAL HEALTH

THE Florida State Dental Society can claim much credit for organization in 1936 of the Bureau of Dental Health within the Florida State Board of Health. The Dental Society had viewed with increasing concern the condition of the teeth of school children and ignorance of the general public as related to dental health. However, it took the Social Security Act with its funds to provide money for the new Bureau.

The primary interest of the Bureau was providing dental health information for school children. The educational effort started with considerable momentum through utilization of all media for reaching the masses, as well as special groups. Soon, however, the Bureau began to suffer from a shortage of dentists, a problem which increased during the war years.

Before the first plan was outlined a cross-section survey of Florida's school children revealed that 92.5 per cent of those examined had some degree of dental decay. Geared to this need, the dental health program made arrangements for corrective services to dental indigents among preschool and elementary school children and pre-natal and postnatal maternity patients on a statewide basis. Refresher courses for dentists in children's or preventive dentistry were staged. Public health nurses took an aggressive part in the education campaign.

Initial facilities for corrective services were carried out with a child's portable dental chair and foot motor. Later with Works Progress Administration (WPA) assistance, a small trailer became a dentomobile, and still later, a larger and better-equipped dentomobile was added. These traveled from county to county, giving priority to those counties most in need of services.

At the beginning of World War II there were nine public health clinic dentists, most of whom were called into military service. During the war and immediately following it, this Bureau took part in numerous Federal studies and surveys. Plans in 1949 were made for the Bureau to participate in a nationwide sodium fluoride project, to be directed by the U. S. Public Health Service. Its purpose was to demonstrate to the dental profession and others the efficiency of topical application of sodium fluoride to teeth of young children as a preventive measure against dental disease.

The next important step was action of the State Board of Health in adopting rules and regulations relative to fluoridation of municipal water supplies. Florida was the second state in the nation to urge



acceptance of this public health procedure. The first city to act was Gainesville which fluoridated its public water supply in 1949.

With the aid of the U. S. Public Health Service, the Bureau of Dental Health conducted dental examinations of approximately 1,500 school children in Jacksonville to determine if the fluoride level of .07 or .08 parts per million naturally occurring for many years in the municipal water supply in the area was sufficient for substantial reduction of decay in children's teeth. Examinations were limited to children born within the city limits who had lived there from birth and had used the municipal water supply. Briefly summarized, the results of these examinations showed that permanent teeth of 44 per cent of children examined were caries free. Their teeth had never been attacked by dental decay; there were no decayed, missing, or filled permanent teeth. Compared with similar dental examinations made in areas in Florida where there was no fluoride in drinking water, this result was phenomenal. However, there was organized opposition to fluoridation in some parts of the State, and violent controversies arose during referendum campaigns causing members of the State Board of Health to review their earlier policy recommending fluoridation. They reaffirmed it. The policy of the State Board of Health was, and continues to be, for the community to make its own decisions regarding fluoridation. When a city decides to add fluoride to its water supply, it becomes a responsibility of the Bureau of Sanitary Engineering of the State Board of Health to approve plans for equipment and its installation, to determine the qualifications of the water plant operators, and to maintain constant surveillance of the amount of fluoride being added to the water supply.

A program was initiated in 1957 by the State Board of Dental Examiners to assist this Bureau in securing public health dentists to staff county health department full-time dental programs. The proposal, approved by all interested professional groups, became known as the Florida Dental Preceptorship Plan. It was unique for Florida's dental health program. It permitted the State Board of Health to employ recently graduated full-time dentists on an intern or preceptorship basis for one year or more under special authorization, prior to their taking Florida Board examinations for licensure.

During the first year of the preceptorship plan seven dentists were employed. Each dentist was assigned to a county health department and worked under administrative direction of the county health officer. He received technical supervision from the preceptorship committee of the local dental society and from the Bureau of Dental Health. This plan filled a huge gap in dental health activities.

The 1955 Legislature also paved the way for more dentists for Florida by providing \$40,000 a year for 10 dental scholarships of four years each. Students receiving scholarships were required to

agree to practice in Florida for a specified time in areas having few or no dentists.

Recognizing that one of the major problems of the aged and chronically ill is lack of dental care, the Florida Dental Society, working with this Bureau, made a survey of elderly and chronically ill patients in nursing homes in selected counties to ascertain the extent of the unmet needs. The study was made in 1962 by practicing dentists designated by local dental societies. The purpose was to measure needs and to develop a project to alleviate those existing among non-ambulatory persons in nursing homes and hospitals.

Funds from the U. S. Public Health Service were utilized to provide two completely equipped portable dental units. Presently these are available for loan to local practicing dentists to assist in taking dental care to non-ambulatory patients confined to their homes, hospitals, or nursing homes. To obtain service the patients need not be dentally indigent. Private patients and those unable to pay for service are eligible for care.

In 1964, the U. S. Public Health Service approved a one-year research grant to the Florida State Board of Health to investigate early cancer of the mouth. The project will be directed by this Bureau. This too is a problem among the aged. In Florida, oral cancer comprises about four per cent of all malignant tumors and accounts for approximately 250 deaths each year. Of every five with these conditions, two survive for five years. The research will be in cooperation with 180 private dentists, four oral surgeons, and 10 pathologists in a 16-county area of northeast Florida, and dentists at the State Prison, Raiford, and, the Northeast Florida State Hospital and Chattahoochee State Hospital (both mental hospitals). After one year of testing for cancer, results will be reviewed and procedures modified if indicated. If the investigation is as productive as anticipated, the study and service will be extended to the balance of the State. The project has the approval of regional and State dental societies, the Florida Cancer Council, the American Cancer Society, and authorities at the prison and the two mental hospitals.

During 1964, Pensacola became the twenty-sixth city to use a water system with controlled fluoridation. Also in 1963 the U. S. Navy, which supplies water to Key West and other cities in Monroe County, added fluorides to its water system. There are 27 additional cities and communities, with an estimated population of 319,490 which have fluorides naturally in their water supplies. Thus 53 communities in Florida, with a population of more than one million persons, are now drinking water containing fluorides in amounts needed to control dental decay.

The growth and expansion of public health dentistry has necessarily been slow. A strong foothold has been established and the population is daily becoming more conscious of the relationship of dental health to general health.

## MENTAL HEALTH

THE mental health program of the Florida State Board of Health was initiated in 1947. The Governor of Florida designated the State Board of Health as the Florida Mental Health Authority, thereby permitting it to receive Federal funds under provisions of the National Mental Health Act. A program using these funds was set in motion in the Bureau of Maternal and Child Health in September 1947, with a psychiatrist as director. It developed gradually from 1947 to 1953, and on October 15, 1953, a Division of Mental Health was organized within the Bureau of Maternal and Child Health, and a clinical psychologist was appointed director. In May 1953 the Florida Legislature appropriated \$150,000 for the biennium 1953-55 to be used to match Federal funds. A project designed to maintain and strengthen the mental health of the people of Florida was implemented in cooperation with community, State, regional, and Federal agencies.

In July 1955 the Division of Mental Health became the Bureau of Mental Health. Since that time, this Bureau has directed development of an extensive program in community and preventive mental health. The total State appropriation for mental health increased from \$150,000 for the biennium 1953-55 to \$1,023,000 for the biennium 1959-61, thus manifesting concern of the Legislature and State Board of Health for the mental health of the citizens of Florida and their determination to be prepared to meet the problems of mental illness. Federal funds for the fiscal year 1959-60 amounted to \$119,000; in 1961 to \$159,000.

During 1950 a new member of the health team was named—the mental health worker. Activity of this worker was based on the idea that a specialist was needed to supplement personnel of local health departments and to provide increased emphasis on preventive mental health. Thirty mental health workers are now assigned to county health departments.

At present the staff of this Bureau consists of a medical director and consultants in clinical and research psychology, psychiatric nursing, mental health nursing, social science, and psychiatric social work. The Bureau is affiliated with and provides consultation and financial assistance to 21 full-time mental health and child guidance clinics.

An Interagency Committee on Mental Health was formed in August 1961. It is composed of the State Health Officer, the director of the Division of Mental Health, the Professor of Psychiatry at the

University of Florida School of Medicine, the director of the Division of Child Training Schools, and the director of the Florida Alcoholic Rehabilitation Program. The committee provides a method of communication between these official agencies, all of which are involved in statewide mental health programs.

The Congress appropriated funds for planning future mental health programs, this money to be used between July 1, 1963, and June 30, 1965. The State Board of Health, as the official mental health authority, is responsible for development of Florida's mental health plan.

The Interagency Committee on Mental Health is giving guidance to the planning program and will act as final reviewer. With its approval, an Advisory Mental Health Planning Council composed of 104 representatives from all areas of the State who have shown interest in mental health has been named. Its Steering Committee of 12 persons elected from the parent body is now in the process of developing a State plan. Eleven task forces have been organized to gather data and make recommendations in the many areas of community mental health.

When these task forces have completed their deliberations, the Steering Committee will consolidate recommendations and present a composite report to the Council and Interagency Committee. Final recommendations will be sent to the Federal Government, and on approval will become the basis for distribution of Federal mental health funds.

Future plans for the Bureau of Mental Health are indefinite. They will depend largely on results of the comprehensive mental health planning now in progress under the Advisory Mental Health Planning Council and the Interim Legislative Committee on Mental Health.

## CHRONIC DISEASES

IN THE EARLY years when the Florida State Board of Health was preoccupied with communicable diseases, there still was thought for "the hopeless condition of the unfortunates" with chronic disease. Dr. Gerry R. Holden, director of the clinic for inoperable cancer, reporting in 1922, said that this clinic "had its origin in the sympathy which the former State Health Officer, Dr. Ralph N. Greene, had for the many unfortunates whom he knew to be dying of inoperable cancer, and his desire to help them." The purpose was to make radium therapy available to indigents. However, the State Board of Health had no authority to purchase radium or to pay for treatments. Hence as Dr. Holden wrote, "It then became the writer's pleasure to cooperate by placing himself and his supply of radium at the service of Dr. Greene and the State Board of Health in the treatment of these indigent patients."

It is known that this first "Cancer Clinic" continued in operation during Dr. Raymond C. Turck's administration in 1921 and 1922. In the second year, three additional physicians, presumably radiologists, participated. A decade went by without compilation of annual reports. The cancer clinic was not mentioned in the summary report prepared in 1932. Those whose sympathy led to action in 1921 would be surprised and distressed to know that the care of indigents with terminal cancer is still not satisfactorily solved in Florida.

The present public health program in chronic noncommunicable disease is a post-World War II development. Again attention was directed first toward cancer. The concern at this time was for early diagnosis and effective treatment; later, with added knowledge, education for prevention received emphasis. From its beginning this was a broadly cooperative program with funds from Federal and State appropriations and from the Florida Division of the American Cancer Society. Leadership came from surgeons, pathologists, and radiologists quite as much as from employees of the official and voluntary agencies. Tumor clinics grew in number and size to the present 24 with 37,336 patient visits in 1963. A Cancer Control Division was established in 1947 within the Bureau of Preventable Diseases and in 1956 moved to its present home in the Division of Chronic Diseases, Bureau of Special Health Services. In recent years this Division has been active in applied research, seeking more effective means of early detection among the economically underprivileged. Throughout the later as well as the earlier years, this program to a



substantial degree has been made possible by the voluntary participation of practicing physicians.

In the Heart Disease Control program, early attention was directed toward prevention of rheumatic heart disease and its sequelae. Action was focused on children, and the program, beginning in 1949, was established within the Bureau of Maternal and Child Health. Later there was greater emphasis on casefinding through chest X-ray examinations. These screening tests revealed as many suspect cardiac abnormalities as lung diseases. Beginning in 1951 Heart Disease Control was incorporated within the Bureau of Tuberculosis. It became a part of the Division of Chronic Diseases in 1956.

Prevention or reduction of deaths and disabilities resulting from cardiovascular disease is the purpose of this program. It seeks to assure that the best care is available to cardiovascular patients. Prevention of death and disabilities and aiding the afflicted requires many community services from local health departments, private physicians, nurses, dentists, nutritionists, welfare workers, homemakers, and others. The Heart Disease Control program strives to stimulate action to establish liaison between community resources.

The Diabetes Control program is the oldest of the categorical programs and began in 1935 with distribution of insulin to medically indigent. The State Legislature at that time provided \$7,500 for insulin for the needy. This appropriation came as a rider on a bill providing free hog cholera vaccine and was introduced by Lisle W. Smith, a diabetic legislator from Polk County. Distribution of insulin to indigents has continued as a basic function of this program.

Casefinding is another active concern in diabetes control. At first this was conducted in conjunction with nutrition studies. The same blood sample was used for hemoglobin determinations, sugar examinations, and other tests. Thus for six years, Diabetes Control was allied with nutrition studies. It joined cancer and heart disease control in the Division of Chronic Diseases with the establishment of the Bureau of Special Health Services in 1956. An activity of continuing interest is publication of a monthly newsletter "Timely Topics" for diabetics. The diabetes program currently provides insulin to about 3,000 indigent diabetics, and maintains a diabetes registry to aid in follow-up. Assistance is given to local health units in diabetes casefinding.

The Prevention of Blindness program (glaucoma) began in 1962, with some financial assistance from the U. S. Public Health Service. Continuing concern in this program is for screening clinics for early detection of glaucoma and other diseases which may cause blindness. Such clinics have been organized in Polk, Volusia, and Orange Counties. Some 55,000 people have been seen in these clinics of which 3.2 per cent were referred for definitive diagnosis.

Professional education has been a common element of all chronic

disease programs. A major activity has been joint sponsorship of professional seminars, whose instructors have been leading authorities in their respective fields. Very recently rehabilitation has been emphasized both in training seminars and in the developing work of county health departments.

It is readily recognized that these activities in chronic disease control represent but a beginning approach to a very big problem.



## LICENSURE OF HOSPITALS AND NURSING HOMES

THE NEED for licensure of hospitals was recognized long before the initial licensing law was passed in 1947. It designated the State Board of Health as the licensing agency. Before 1957, licenses were issued to hospitals desiring them on a self-evaluation basis and without formal inspections. The amended law required licensure of all hospitals having 10 or more beds. The staff to implement the law was an initial unit in the Division of Hospitals and Nursing Homes in the Bureau of Special Health Services. At the close of 1963, a total of 186 hospitals with 19,776 beds were licensed.

Though there was general consensus as to need, no law required licensure of nursing homes prior to 1953. Early in that year a disastrous fire occurred in a nursing home in Pinellas County, in which 32 lives were lost. This tragedy resulted in the prompt passage of a State law for licensing and regulating nursing homes and related facilities. The authority, used conservatively, has resulted in closure of a limited number of inadequate facilities and in gradual improvement of many others. Education and persuasion has been the rule. As of 1963, a total of 352 homes with a total of 13,339 beds were licensed.

## HOSPITALIZATION FOR THE INDIGENT

IN THE BROAD FIELD of medical care for the indigent, effective action was taken in 1954 by the Florida Medical Association when it requested the Governor to name a committee to study the rapidly growing problem of hospital care for the indigent of Florida. Costs then were partially borne by the various counties and municipalities or totally carried by the hospitals. The Governor's committee recommended establishment of a uniform system of hospitalization for acutely ill indigent patients with a sharing of cost by the State and counties. The recommendation was enacted into law and an official program of hospitalization for the indigent began January 1, 1956. Later in the same year the State Department of Public Welfare obtained authority to inaugurate a hospitalization program for the categorically indigent. Hospitals are reimbursed on an individually established cost basis. Each hospital must submit a cost statement. This has led to a more uniform accounting system.

The 1957-59 Legislature placed full responsibility for this program on the State Board of Health. This resulted in loss of substantial amounts of Federal matching funds. Subsequently, the program has grown as a cooperative activity of the State Department of Public Welfare and the State Board of Health. It has been broadened in scope to include the categorically indigent, the indigent, and the medically indigent. Payment for nursing care in the home is authorized under some conditions.

There is a recognized need for outpatient medical services and homemaker care, but it has not been found practical to establish them on a statewide basis. Hospitalization and medical care is a costly program and it is acknowledged that even the present substantial budget does not fully meet current needs.

## RADIOLOGICAL AND OCCUPATIONAL HEALTH

THE DIVISION of Industrial Hygiene in the Florida State Board of Health was established in 1946, following an intensive survey of industrial hygiene problems made jointly by the U.S. Public Health Service, the Florida State Board of Health, and the Florida Industrial Commission. Activities of this Division never were confined to industrial plants but, in concept at least, encompassed all places of work. The close cooperative working relationship of the Division with the Florida Industrial Commission has been an outstanding demonstration of the practicability of interagency effort toward a common goal.

With changing program definition, and continued rapid industrial growth in the State, occupational health activities have become primarily those of a "trouble shooting" or emergency investigation nature with little time or opportunity for planning and implementing a comprehensive program.

In the field of radiation protection, exposure hazards are preventable, and preventive measures have been developed. Concern over the effect on the population of widespread contamination of the atmosphere by weapons testing led to a study of other contributors to the radiation dosage. It became evident that at this time the major contributors to total exposure are natural radiation background and diagnostic use of X-rays. These two together deliver about two-thirds of the total dosage.

In 1949 a statewide survey of hazards of shoe-fitting fluoroscopes was made. Because of their demonstrated danger to both the shoe merchant and the general public, most of the machines were removed from use. In April 1961, by amendment of the Sanitary Code of the State Board of Health, this use of X-rays became illegal and has been abolished. Responding to requests from medical, dental, and other groups, the members of which use X-rays in the healing arts, the Division in 1957 began a program of survey and consultation as a part of a joint effort to reduce the nonproductive exposure incident to this use. This is becoming a major public health effort in an increasingly large percentage of the states.

In 1960 the Division of Industrial Hygiene was renamed the Division of Radiological and Occupational Health and became the focal point for all activities in the public health aspects of ionizing



radiation. The Bureau of Laboratories was assigned responsibility of providing laboratory support to this effort.

In 1963 the State Board of Health revised its regulations for the control of radiation hazards, the Florida Nuclear Code was amended, and the Governor designated the State Board of Health as the administrative agency for radiation protection. These actions paved the way for the transfer on July 1, 1964, from the United States Atomic Energy Commission to the State of Florida, of those regulatory powers authorized by the United States Congress.



## ACCIDENT PREVENTION

THE IMPORTANCE of accidents as a cause of disability and deaths has progressively increased. It has long been the number one cause of death from age one through 24 years and ranks high throughout the productive years. Public health only belatedly has initiated a specific program in this field.

To some degree accident prevention has been incorporated into the routine duties of the public health nurse, the sanitary engineer and the sanitarian. In 1955 and 1956, many of the county health officers assisted local pediatricians in setting up poison control centers in hospitals throughout Florida, in cooperation with the Florida Pediatric Society, the Florida Chapter of the American Academy of Pediatrics, and the State Board of Health. In 1958 accident prevention was recognized as a specific public health activity by the assignment of program responsibility to the Bureau of Special Health Services. An accident prevention consultant was assigned to the program at that time. Emphasis was placed on home, family, and recreational safety, since traffic and industrial safety were covered by other State programs.

In 1962, responsibility for the Accident Prevention Program was transferred to the Bureau of Local Health Services, and a full-time health officer was assigned to direct the program.

## DISASTER AND EMERGENCY SERVICES

THE FLORIDA STATE BOARD of Health became a reality as a result of a disaster, an epidemic of yellow fever, and throughout its life has repeatedly turned its every effort to emergency relief. Throughout the years, there have been many major or minor emergencies due to epidemics, though decreasing in frequency. Every such occurrence called forth vigorous public health action.

Hurricanes also have been recurring disasters. It has been estimated that over 4,000 lives have been lost in hurricanes in Florida. Three of these storms were outstanding. In 1926 a storm in Miami and South Florida took a known 242 lives. The worst disaster was in 1928 around Lake Okeechobee. Here the water was swept out of the shallow lake basin and an unknown number of agricultural laborers and their families were lost by drowning or were buried in the debris. A total of 2,600 bodies were found. Again in 1935 a vicious storm struck the Keys, which had at that time multiple camps for relief workers. It is presumed that many bodies were carried out to sea, but the known dead exceeded 500. In such disasters the acceptable disposal of bodies was a sad responsibility of the State Board of Health. Cremation was authorized when other means could not be used, but this brought forth sharp criticism of the State Health Officer. The re-establishment of sanitary facilities was a herculean task. Those who survived required food, shelter, and protection from epidemic diseases, particularly typhoid fever. In these and other disasters, the efforts of all available public health personnel were temporarily directed toward the emergency problems. The severe storms of recent years have been free of mass fatalities; only scattered accidental deaths have occurred. An effective storm warning service, coupled with "hurricane proof" construction has had high public health significance.

In Florida a destructive freeze is a disaster which has public health as well as economic significance. The problem here is rendering emergency health and welfare aid to migrant agricultural laborers suddenly deprived of their meager hand-to-mouth income. During a freeze there is severe suffering from cold since shelters are designed for warm weather living. Whole communities are affected as was Immokalee in 1958. Here major responsibility for aid fell

to public health personnel and involved the establishment of a work relief program. This resulted in a "community cleanup" such as the town heretofore had not experienced. This disaster left a cleaner and more sanitary town, a newly established park and playground, and an appreciative public.

The arrival in Miami of more than 100,000 Cuban refugees created an emergency. Many of these refugees needed economic relief and this was provided through the State Department of Public Welfare. But they also required medical care. In view of their numbers and the language barrier, care in established outpatient services was not practicable. Thus, the Dade County Department of Public Health and the State Board of Health acquired the responsibility for administering a special hospitalization program, and giving outpatient medical care and health services to a population equal to that of a city of moderate size. Federal funds were provided. By agreement, Cuban professionals were used insofar as possible, but responsibility for creation of facilities, building of staff, and supervision of the program rested heavily on the Dade County Department of Public Health. The work continues. The emergency became a continuing activity.

There has been planning also to meet a State and national disaster which hopefully will never come. As a part of the national Civil Defense Program, a health mobilization program has been established in the State Board of Health to plan emergency programs, to educate the public, to supervise custody of emergency hospitals assigned to Florida, and to instruct public health personnel and others in health-related professions how to set up and operate them.

## RESEARCH

EVER SINCE the establishment of the State Board of Health, research broadly conceived has been a part of public health effort in Florida. Observations on the control of yellow fever in Pensacola in 1905 confirmed to the satisfaction of public health physicans concerned that this disease was mosquito-borne and under natural conditions was spread only by a specific species. This did not add to the sum total of knowledge since it was merely a confirmation of published conclusions. But public health workers had questions and they found the answers through observations; this is research. In many other problems, the inquiring and research approach was used in seeking better understanding and more effective public health procedures. Beyond this are investigations involving the full commitment of the staff to research. The following comments are limited to this fulltime activity.

The first effort of this type was in malaria research which was planned and maintained with the cooperation of Florida State University, the State Mental Hospital, and the Rockefeller Foundation. Dr. Mark Boyd was its director. He acquired international recognition for basic studies which contributed both to knowledge of malaria and to treatment of syphilis involving the central nervous system. Dr. Boyd's work in Tallahassee began in 1931 and continued until his retirement in 1947.

The major interest in research in the years immediately following World War II centered in the laboratory and in entomology. In the former, through research grants, bacteriologists could be freed to devote research attention predominantly to enteric infections, rabies, pulmonary disease simulating tuberculosis, and more recently, to viral encephalitis. Numerous other problems were studied by younger staff members employed to provide services. In entomology productive field studies were undertaken. Simultaneously, attention was directed to plans for an Entomological Research Center for which laboratories in Vero Beach were completed in 1954. In a very few years this Center has become recognized internationally as a unique and highly productive facility.

An added major research program grew out of the disturbing St. Louis Encephalitis epidemic of 1962 in the Tampa Bay area. Supported by a substantial research grant and a special State appropriation, studies designed to clarify the nature of this problem and to provide for more effective control, were initiated in late 1962. Located in space provided by the Southwest Tuberculosis Hospital



in Tampa, the staff is able to advance research interests without distraction by service demands.

In recent years many promising studies in the field and in the laboratory are being supported mainly by National Institutes of Health research grants. County health units, bureaus, and divisions are taking some part in research. From the smallest beginnings in the early fifties, support of research through grant funds has progressively increased to approximately \$600,000 annually. To this are added State funds for special studies, chiefly in entomology and encephalitis. There is some support from foundations and research grants from other sources. In all, about \$1,000,000 annually is available for research by the State Board of Health.

A coordinator of research was designated in 1956. A Bureau of Research to carry these and other functions was authorized in 1964. The development of research in the varying organizational units of the State Board of Health has been a major interest of the senior author for a number of years.

## TRAINING

FROM CREATION of the State Board of Health in 1889, until the late twenties there was no organized training program for public health personnel. Training appears to have been a personal, learning-together process involving primarily conferences and the writing and sharing of reports.

Early organized training was provided by the several public health-related associations which began in the twenties and early thirties. The Anti-Mosquito Association was initiated in Daytona Beach in December 1922, and its subsequent annual meetings, each of several days' duration, were devoted almost entirely to training. In 1930, the first annual waterworks short course was held in conjunction with the annual meeting of the Florida section of the American Water Works Association in Gainesville, in cooperation with the General Extension Division. The Florida Public Health Association met first on May 1, 1930. The annual meetings of each of these associations were devoted primarily to the education of professional public health personnel.

The first extensive inservice training program was developed by the nursing division of the State Board of Health in 1934, when it acquired, through the Federal Emergency Relief Administration, a large quota of nurses, few of whom had any knowledge of public health. To meet the problem, the director of nursing developed a training program using, primarily, short courses, institutes, and work manuals.

With the establishment of county health units in the thirties, there developed a staff of nurse consultants and sanitation consultants whose primary responsibilities were orientation and inservice training of personnel for newly established health units. This work, on the part of consultants, has continued until the present.

The Social Security Act of 1935 provided new opportunities for training public health personnel. Funds made available through the act were used to send a large number of new employees of Florida's expanded public health program to out-of-state universities for a three-month introductory short course in public health. Twenty-nine employees completed such courses during 1937. Need for more extensive training was soon recognized, and later Federal funds were used for sending key personnel for a year of graduate training. During the past 17 years, 202 professionals received training for a full academic year. These included 40 health officers, 20 engineers,

70 nurses, 33 sanitarians, 9 laboratory professionals, and 30 other professional personnel.

Late in 1945 the Commonwealth Fund approved a grant for establishing a field training center to be operated in Gainesville by the Alachua County Health Department in cooperation with the Florida State Board of Health and the University of Florida. From the beginning of this program in 1946, through July of 1955, a total of 62 health officers, 103 nurses, 190 sanitarians, and 32 clerks were trained. In 1956, the training center for sanitarians was moved to the State Board of Health in Jacksonville and later, all training at the center in Gainesville was terminated. The three-month short course for sanitarians is still in operation in Jacksonville. From 1956 through 1963 training was given to 130 sanitarians.

In 1951 a plan was evolved by the Division of Health Education to orient those recently employed and bring up-to-date the knowledge of old employees. Three-day programs are held three times yearly at the central office. Each of the many facets of public health is reviewed by bureau and division directors. In recent years this orientation program has been open to professional staff members of related official and voluntary health agencies. The sessions have been widely commended. Training and orientation of foreign students and visitors are also supervised by the Division of Health Education.

In 1955, the Legislature established scholarships for the study of medicine, dentistry, and several disciplines related to mental health. These scholarship programs have been administered by the State Board of Health; however, few of the scholarship recipients have become professional public health workers. A summer student training program to promote the interest of college and postgraduate students in public health was started and has grown progressively in the past decade. For a period not to exceed three months, students are assigned to work in areas commensurate with their educational backgrounds in appropriate facilities of the State Board of Health or county health departments. In excess of 50 students per summer now obtain practical educational experiences and receive modest stipends as well.

By 1963, training activities had grown significantly in scope and volume. An addition to the staff is a Coordinator of Training, under the general direction of the State Health Officer. He administers established programs and assists in development of new training activities relevant to all disciplines represented in the State Board of Health and county health departments.

Training is provided by consultants and other resource personnel of the State Board of Health and, as indicated, jointly with junior colleges, universities, and the Florida Institute for Continuing University Studies. The purpose and goal of training programs is to provide ways and means of keeping abreast of expanding horizons.

## EPILOGUE

### “SO MUCH FOR SO MANY BY SO FEW”

CONCLUDING this survey of the remarkable changes in Florida's health since 1889, the thoughtful Floridian may well recall those historic words of gratitude to unnamed heroes, “So much for so many by so few.” For some employees, there could be the additional “for so long.”

The authors had hoped to recognize by name all those who had served the State Board of Health for 30 or more of its 75 years. An assuredly accurate list could not be obtained or compiled. However, those who have given 40 or more years can be named. Heading the list is Homer D. Venters who has directed the Tampa Regional Laboratory for almost all of his 49 years of continuous and continuing service. Ernest Ganten established the printing and duplicating section and retired after 43 years (and shortly thereafter joined the staff of the Florida Tuberculosis and Respiratory Disease Association). Frank M. Whiddon for most of his 40 years was the supervisor of Buildings and Grounds.

Many of those with long service continue to use their experience to the benefit of the Board of Health. Some retired at 30 years to a “second career”; others died. Among the latter was Pearl Griffith who served repeatedly as acting director of Laboratories during her 34 year employment; Henry Brown with 38 years service was a close associate. They retired at the same time and died after a relatively short interval. Many joined the Board of Health as a result of the “stimulated growth” in the mid-thirties; some are already eligible for their “30 year pins” and others will be shortly. The staff increases following World War II will soon make “20 year pins” commonplace.

There was less difficulty in identifying those who had provided program leadership for a decade or more. A majority are among the current program directors listed elsewhere. The few others can be named. Ruth Mettinger provided leadership to Public Health Nursing for 30 years, Marshall Doss organized what is now the Bureau of Narcotics and was its director for 25 years, and Stewart G. Thompson gave pioneering leadership to Vital Statistics for almost two decades. Dr. Mark Boyd directed the Malaria Research Laboratory

for 15 years and Dr. George Dame was head of Local Health Services for 14 years. George Simons directed Sanitary Engineering for its first decade, Paul Baker organized personnel services and was its chief for 12 years, and Dr. James Scatterday initiated the Division of Veterinary Public Health and was its head till his death 14 years later. Three of today's program directors gave prior leadership to other programs. Dr. L. L. Parks, an earlier director of Local Health Services and its present director, has also been head of Field Technical Service, Preventable Diseases, Special Health Services, and Maternal and Child Health, some two decades of senior responsibility. Dr. C. M. Sharp gave vigorous leadership to Tuberculosis Control for 13 years before serving as Assistant State Health Officer and director of the Bureau of Preventable Diseases. Dr. Albert V. Hardy was director of Laboratories for a decade before he was designated Assistant State Health Officer and Coordinator of Research, and later the first director of the Bureau of Research. He also was appointed Acting State Health Officer during Dr. Sowder's absence during October 15, 1961 to December 31, 1962.

On page 73 will be found the names of those who have been county health officers for 10 or more years.

There are also those who gave many years of service to public health through voluntary health agencies. Florida's Tuberculosis and Respiratory Diseases Association has a long history in Florida as in the nation. During most of its years of active growth and vigorous battle with the foremost killer, May Pyncheon was its executive director. Subsequently she has had her "second career" with the Board of Health.

We believe we speak for all State Board of Health and county health department employees when we say "Thank you for the privilege of having been able to have some part in the dynamic growth of Florida's public health program."